

NSLDS II
Hi-Level Requirements
FINAL

April 5, 2002

Table of Contents

- NSLDS II Focus Group Executive Summary
- ATTACHMENTS
 - Hi-Level Business Requirements
 - Strawman Design Updates
 - Fetch Strategy
 - Data Feed Re-engineering
 - Data Mart Strategy
 - Common Record Convergence
 - Community Site Visit Summaries
 - FFEL Market Share Data

**NSLDS II
Focus Group
Executive
Summary**

NSLDS II Reengineering Objectives

- Improve financial integrity
- Reduce SFA costs associated with NSLDS and related operations
- Improve quality and usability of NSLDS information, benefiting the Department and other NSLDS users in the financial aid community
- Balance SFA's data needs with burdens placed on financial aid community
- Improve usability of NSLDS data repository through new tools
- Take greater advantage of non-NSLDS data resources available within SFA and from the financial aid community

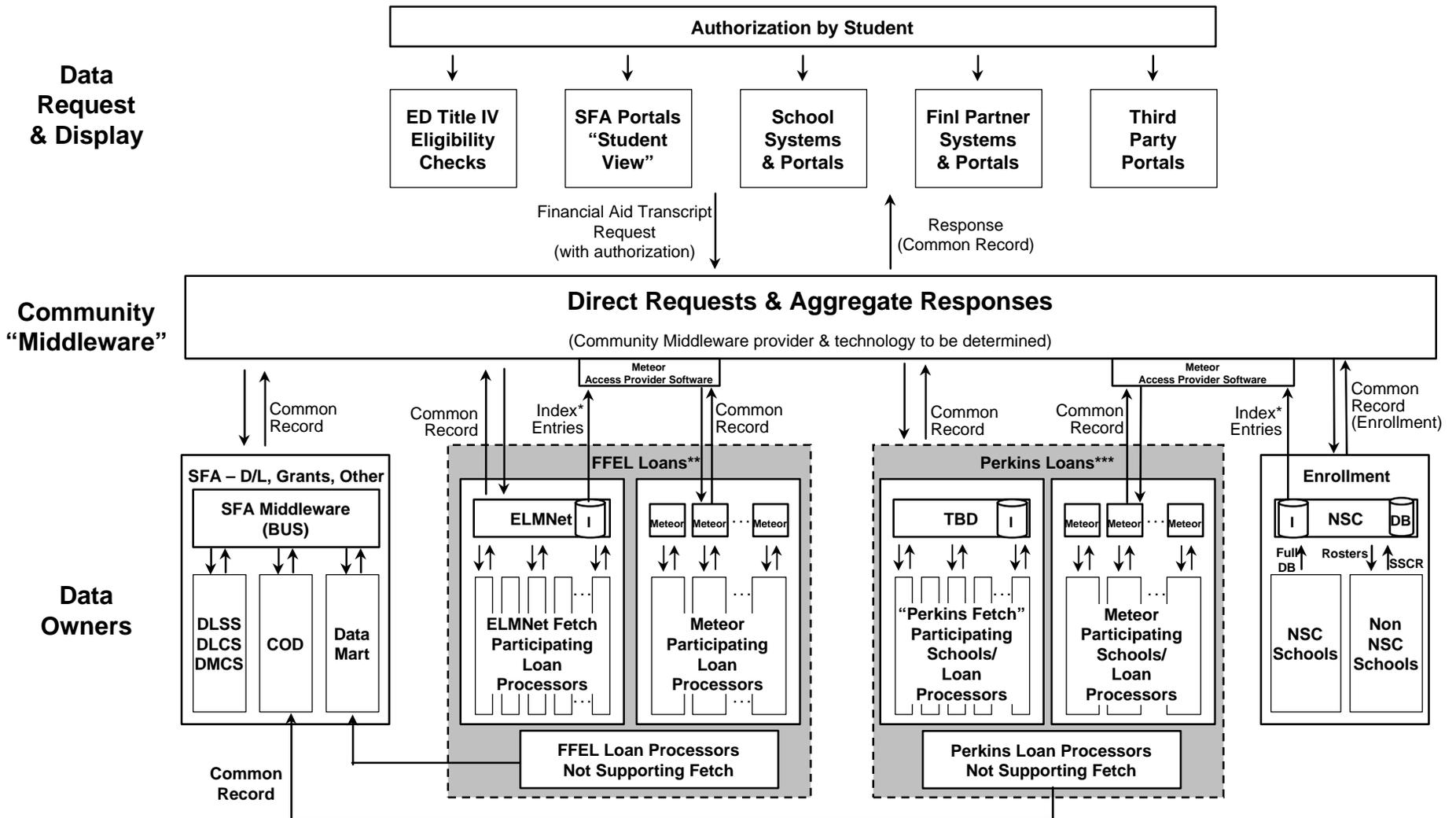
Project Objectives and Participants

- The major objective of the initial phase of the NSLDS reengineering effort was to assess the viability of a “fetch” strategy that would provide for:
 - Direct access to provider systems for transaction-based functions such as determining student aid eligibility
 - Data marts with end-of-period data, aggregated to support analytics such as cohort default rates
 - Common record extensions needed to support the fetch strategy
 - Integrate external data feeds with SFA business processes to simplify processing, improve data quality and help address SFA financial integrity requirements
- Feedback and support for this initial phase of work was provided by senior executives from SFA and the financial aid community, key representatives from community data providers, and the Modernization Partner team.

Key Findings and Implications

- A fetch capability will provide benefits to SFA but it will take some time for industry consensus on the pre-requisite standards, technology and provider to emerge.
 - Key challenge is FFEL and Perkins due to number & variety of data providers
 - ELM's fetch solution is maturing but will need time and creativity to achieve broad coverage for its index and from loan servicers
 - Meteor solution is less mature and has major open issues regarding its business model and user technical support strategy
 - SFA capabilities need enhancement to support a fetch strategy
 - Convergence on XML-based data exchange standards is just beginning
- SFA's program management responsibilities require a Title IV aid data repository (e.g., a data mart) even if a fetch strategy were fully implemented
 - Fetch technology cannot support analytical reporting needs
 - Modern analytical tools are needed to make SFA's repository more useful
 - An SFA internal fetch strategy should allow less frequent internal update of data mart
- SFA should integrate FP data reporting with other business processes
 - E.g., loan default data should be reported with Form 2000 invoices and provide supporting detail to substantiate the invoice amounts
 - Integrating data with business processes should improve the quality of data
- SFA can reduce redundancies and perhaps costs if the Clearinghouse enrollment data and NSLDS enrollment data can be merged into a single repository

Fetch Strategy



* Unclear whether Meteor will use ELMNet index, NSC index, or both. ELMNet may not agree to allow Meteor software to use its index. NSC index was used in the reference implementation of Meteor.

** Diagram shows ELMNet & Meteor as alternatives in FFEL Fetch Strategy in order to depict how each would work. Open issues remain before their relative roles can be determined. The diagram does show one way the two approaches could co-exist if FFEL community chooses to support both.

*** Perkins loan fetch could be supported in a manner similar to FFEL (possibly with ELMNet as a Perkins fetch integrator) or by SFA if Perkins Loan data is reported often enough to SFA.

FFEL Fetch Capability* Key Building Blocks, Requirements & Candidates

Infrastructure

Business Model

ELM or Meteor

- Sustainable, performance-based organization
- Ongoing funding for fetch product
- Incentives for data and index providers to participate
- Arrangement enables SFA to force compliance with critical Title IV requirements

Technical Support

ELM or Meteor

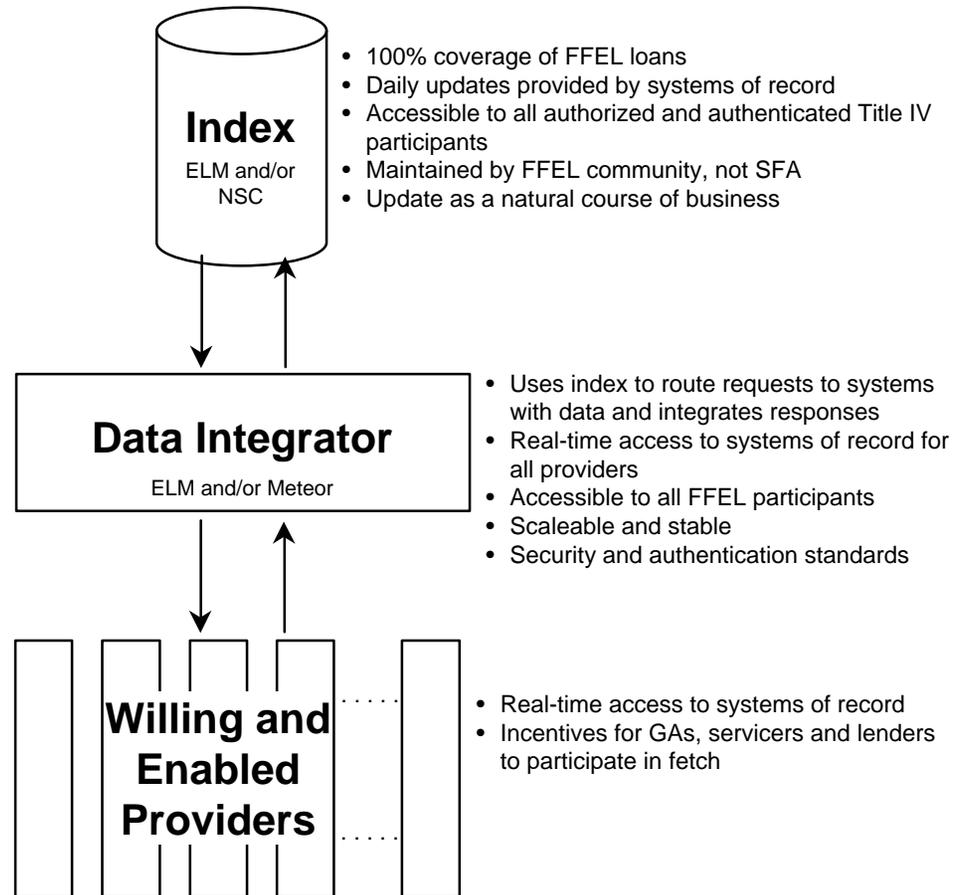
- Reliability and disaster / recovery
- Installation and help desk support
- Well-managed software distribution / version control
- Maintenance and enhancement of fetch capability

Data Standards

Common Record and/or CommonLine and/or CAM

- Reflect community consensus on data exchange format
- Accommodate all pre- and post-origination processes
- Support PESC XML standards as they evolve

Core Components



*Perkins Fetch building blocks & requirements are similar but candidates differ

Common Enrollment Database Key Building Blocks & Requirements

Infrastructure

Business Model

- Sustainable, performance-based organization
- Ongoing funding for enrollment database
- Incentives for schools to participate
- Does not require membership fee for minimal Roster/SSCR processing
- Arrangement enables SFA to force compliance with critical Title IV requirements

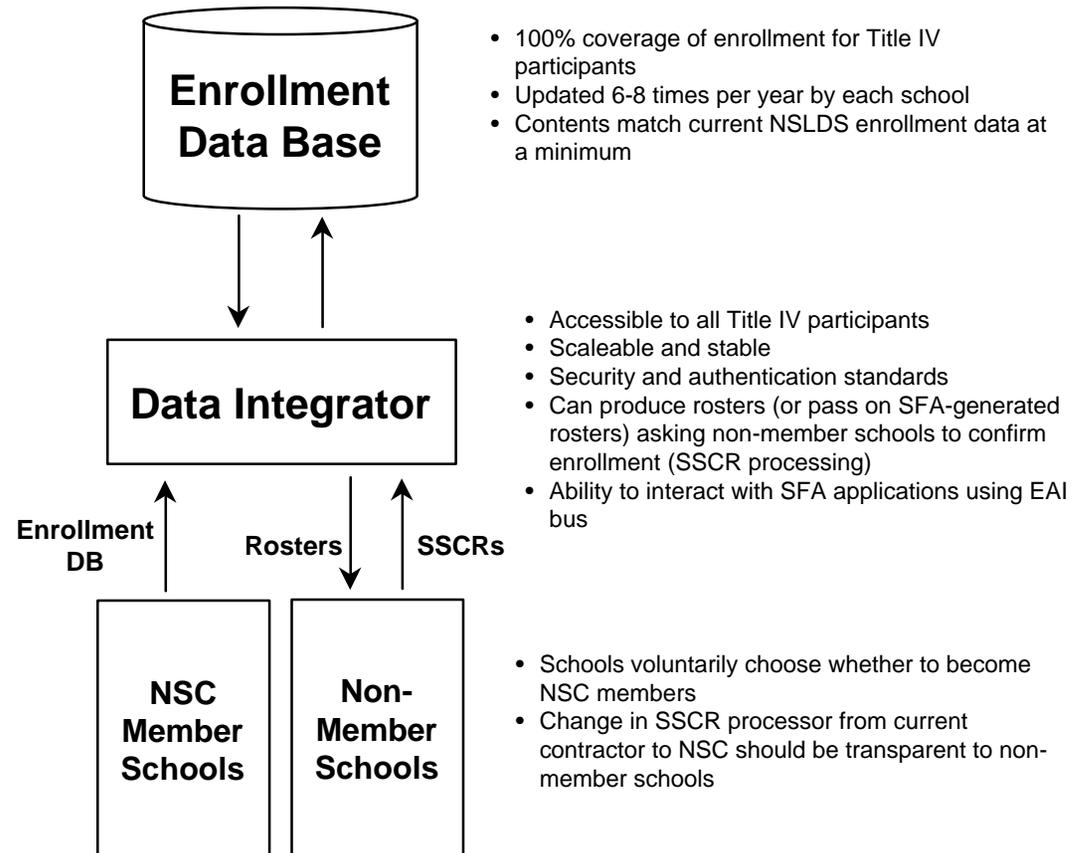
Technical Support

- Reliability and disaster / recovery
- Installation and help desk support
- Maintenance and enhancement of database

Data Standards

- Support Common Record
- Support current SSCR data standards
- Support PESC XML standards as they evolve

Core Components



- 100% coverage of enrollment for Title IV participants
- Updated 6-8 times per year by each school
- Contents match current NSLDS enrollment data at a minimum

- Accessible to all Title IV participants
- Scalable and stable
- Security and authentication standards
- Can produce rosters (or pass on SFA-generated rosters) asking non-member schools to confirm enrollment (SSCR processing)
- Ability to interact with SFA applications using EAI bus

- Schools voluntarily choose whether to become NSC members
- Change in SSCR processor from current contractor to NSC should be transparent to non-member schools

NSLDS II Next Steps

- **Develop a design for SFA changes that accomplish the following objectives:**
 - Integrate FP data reporting with SFA's FP payment processes
 - AMF/LPIF payments and reinsurance payments for GAs (Form 2000)
 - Interest subsidy and special allowance payments for lenders (Form 799)
 - Combine SFA and NSC enrollment data into a single repository
 - Create an internal SFA fetch capability for SFA-maintained Title IV aid data
 - Position SFA systems to support a future FFEL and Perkins fetch capability
 - Restructure SFA's NSLDS data repository to support modern data mart analytical tools
 - Can support a phased migration by industry participants
- **Estimate costs for the phased implementation of the design and quantify potential cost savings**
- **Support SFA participation in emerging industry consensus on fetch and data exchange standards**

NSLDS II Transition Principles

- **Allow Time**
 - Title IV aid delivery is supported by literally thousands of computer systems
 - SFA must allow time for any changes to be first understood and then incorporated

- **Volunteers First**
 - Working with committed partners will help SFA streamline and improve new processes

- **Old Must Co-Exist with New During Transition**
 - SFA's partners will change at different paces
 - SFA must support current processes until all partners have been given adequate time to change their systems and processes to match modernized capabilities

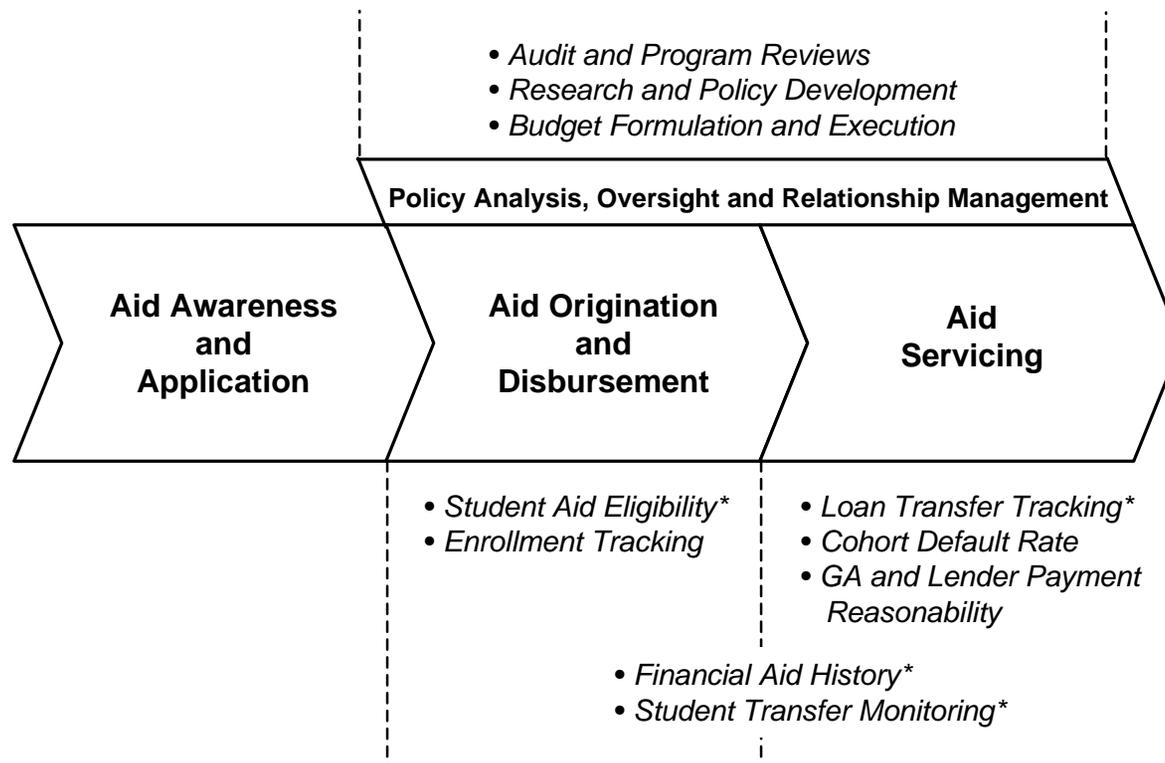
- **Attract Volunteers with Improved Capabilities, Not Mandates**
 - SFA should measure the quality of its improved capabilities in part by the willingness of partners to voluntarily move to the new standard
 - Process improvements should be considered when substantial volunteers are not coming forward
 - Mandates for new processes should only be used as a last resort or upon request of the community to help spur standardization

- **Help Those That Need It**
 - Title IV aid involves a wide variety of organizations
 - SFA should seek reasonable ways to help smaller organizations make the transition to modernized processes

**Hi-Level
Business
Requirements**

Hi-Level Business Requirements

The map aligns current NSLDS-supported business functions with their corresponding phase within the end-to-end student financial aid delivery process.



*Functions that benefit most from fetch capability

Summary of Major Requirements

This table identifies the data freshness required to support each of the NSLDS high-level requirements. Requirements needing current data are the most likely to benefit from a fetch capability.

	<u>Data Freshness</u>
<p><u>Student Aid Eligibility</u> (<i>Individual Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Performance of both pre- and post-screening 	- Current (best case, for post-screen)
<p><u>Financial Aid History</u> (<i>Individual Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Assist students and schools in tracking the student's financial aid history - Provide schools with flexibility to manage student access to data during loan origination 	- Current (best case)
<p><u>Student Transfer Monitoring</u> (<i>Individual Student Level Data</i>)</p> <ul style="list-style-type: none"> - Monitoring a transfer student's financial aid history and alerting the current school when there are significant changes 	- Current (best case)
<p><u>Loan Transfer Tracking</u> (<i>Individual Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Assist borrowers in locating the current holder of their loan(s) - Track loan transfers and sales over the life of a loan 	- Current (best case) - No more than 1 quarter old
<p><u>Payment Reasonability</u> (<i>Individual Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Substantiate the fees and payments made to lenders & GAs 	- Aligned with quarterly or monthly payment cycles
<p><u>Cohort Default Rate</u> (<i>Individual Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Calculating draft and official cohort default rates - Calculating notional default rates 	- No more than 1 month old
<p><u>Enrollment Tracking</u> (<i>Individual Student Level Data</i>)</p> <ul style="list-style-type: none"> - Assist schools in reporting student status changes correctly and in timely manner to the holder of the loan 	- 6X per year
<p><u>Audit and Program Reviews</u> (<i>Individual Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Plan and assist in the performance of audits or program reviews of GAs, servicers and schools to verify adherence to DoED policy 	- No more than 1 quarter old
<p><u>Research and Policy Development</u> (<i>Aggregate Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Research trends in support of short-term and long-term policy development 	- No more than 1 quarter old
<p><u>Budget Formulation and Execution</u> (<i>Aggregate Loan Level Data</i>)</p> <ul style="list-style-type: none"> - Estimate seven-year budget and ad-hoc research 	- No more than 1 quarter old

Fetch Strategy Summary

- The fetch capability offers a superior approach for meeting the following NSLDS business requirements
 - Post-screening for student eligibility
 - Loan transfer tracking
 - Student Transfer Monitoring
 - Financial Aid History
- Batch alternatives can meet these requirements if compromises are accepted to address risks of dated information
 - Two main types of compromises
 - Acting on dated information and then checking for mistakes when fresh information is available.
 - Delaying action until the batch process provides fresh data
 - Compromises can make sense when the costs of error, or the potential for error, is small
 - High cost example: disbursing funds for a recently ineligible student
 - Low cost example: neglecting to alert a borrower to a recently transferred loan
- More information needed to assess viability of fetch strategy, including:
 - How often do errors occur today (e.g., disbursements for ineligible students)
 - Customer service value of preventing potential errors inherent with using dated information
 - Incremental cost to implement fetch strategy relative to cost of expected errors from dated information

Data Mart Strategy Summary

- A data mart offers a superior approach for meeting the following NSLDS business requirements:
 - Cohort Default Rate
 - Audit and Program Reviews
 - Research and Policy Development
 - Budget Formulation & Execution
 - Enrollment Tracking
 - Payment Reasonability
- Payment reasonability check requirements may be best met by merging the invoice process with the processes that will feed detailed data to the NSLDS data mart
 - E.g., Ask GAs to submit loan default records with the Form 2000 that requests default repayment
- NSLDS II data mart update strategy needs to recognize lender and GA systems as the official systems of record for most FFEL data
 - All updates should come from systems of record – end most direct updates to NSLDS
 - Practice of updating NSLDS independent of lender/GA source system can perpetuate data integrity problems
 - A band-aid solution made necessary by delays and difficulties in getting updated data to NSLDS
 - Fetch strategy could help by providing immediate visibility when lender/GA/SFA system of record updates occur, without waiting for the data to reach NSLDS
 - Need a means to periodically “refresh” NSLDS records with system of record information
 - Potentially enable periodic full replacement of NSLDS records as a supplement to the changes-only reporting used exclusively today.
 - Record replacement is a common method for refreshing data mart contents with system of record data
 - Recognition as systems of record may demand stronger edit rules in Financial Partner systems in cases where current edit rules cause justified NSLDS rejects today

Student Aid Eligibility

Function: Pre-Screening

NSLDS shall support the pre-screening of all Title IV applicants. This screening is done as the first step in identifying whether an applicant is eligible to receive any Title IV Aid. Before any aid is disbursed, applicants will undergo another screening (the “post-screening”) This process occurs for Grant, Direct and FFEL Loan participants. Pre-screening is the process of identifying financial aid applicants (FAFSA) who:

- Are in default on an existing Title IV loan
- Owe overpayments on a Pell grant
- Have already borrowed the maximum amount allowed based on annual loan limits or aggregate loan limits (based on unpaid principal) for each loan type

Data Requirements:

Detail Level: Individual Loan

History: All Aid Received

Frequency of Use: Daily

Freshness of Data: No more than 1 month old *

Function: Post-Screening

NSLDS shall support the post-screening of all Title IV applicants. Post-screening is the process of eligibility screening applicants after pre-screening and prior to disbursement. This is done to validate or verify if any significant changes to their financial aid history may have occurred since pre-screening that may have an impact on their eligibility for Title IV Aid. This process is automated within NSLDS and occurs biweekly.

Data Requirements:

Detail Level: Individual Loan

History: All Aid Received

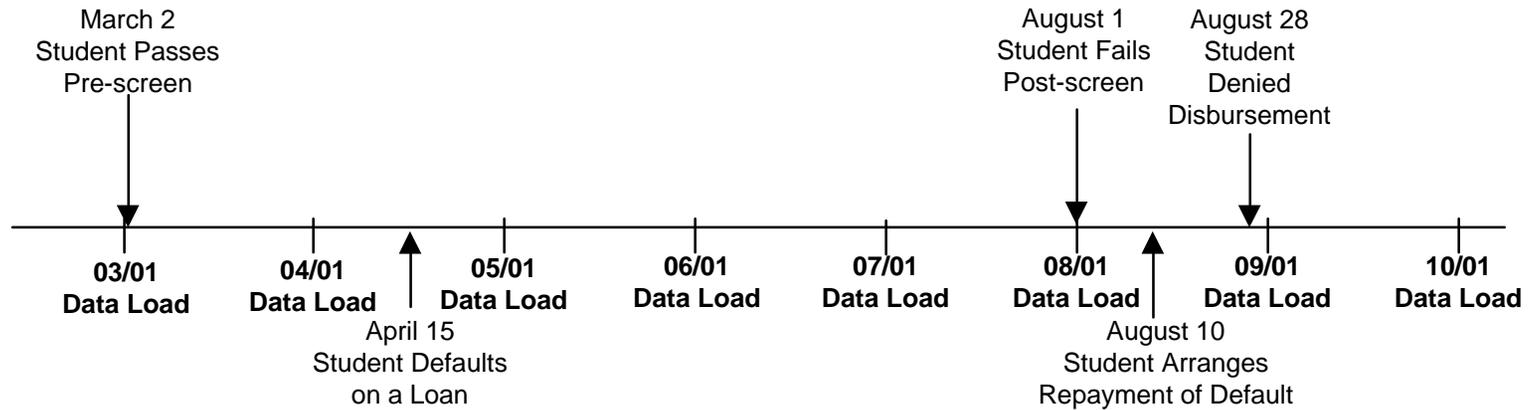
Frequency of Use: Weekly

Freshness of Data: Current *

*** See post-screening scenarios and summary on next 3 pages**

Student Aid Eligibility Post-Screening Scenarios

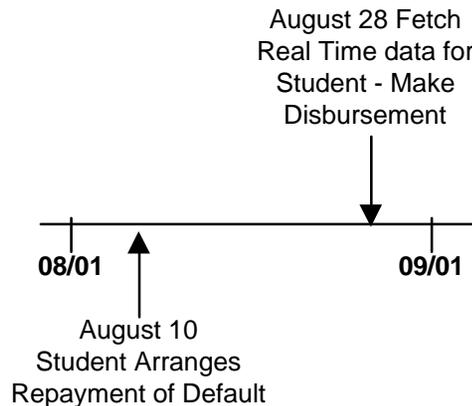
Disbursement Denied for Eligible Student – Current Process



In this scenario, the student defaulted on a loan and was subsequently denied a disbursement based on a post-screen. The student then made arrangements for repayment during the middle of the month in which the disbursement was scheduled. The data feed reflecting this arrangement did not enter the system until AFTER this disbursement denial took effect because the data feed is always scheduled on the first of the month.

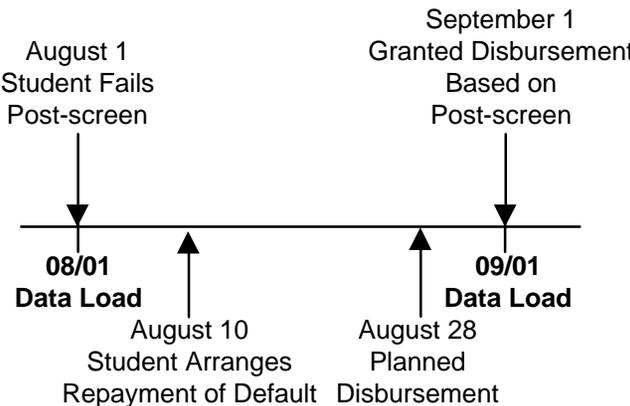
What Process Changes Can Eliminate this Problem?

Fetch Strategy



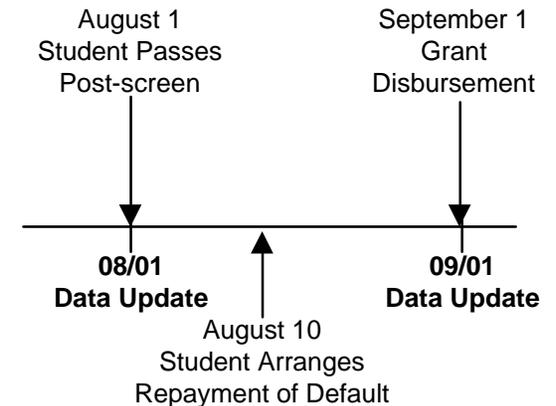
Rather than receiving quarterly / monthly feeds, simply fetch real-time data prior to major decisions, like disbursements. This also eliminates the need for the initial post-screen – in this case, on Aug 1.

Second Post-Screen Strategy



Re-screen the applicant when fresh data arrives but AFTER the disbursement is denied. This strategy presumes that SFA or the Lender can quickly reverse a disbursement denial once an error is discovered.

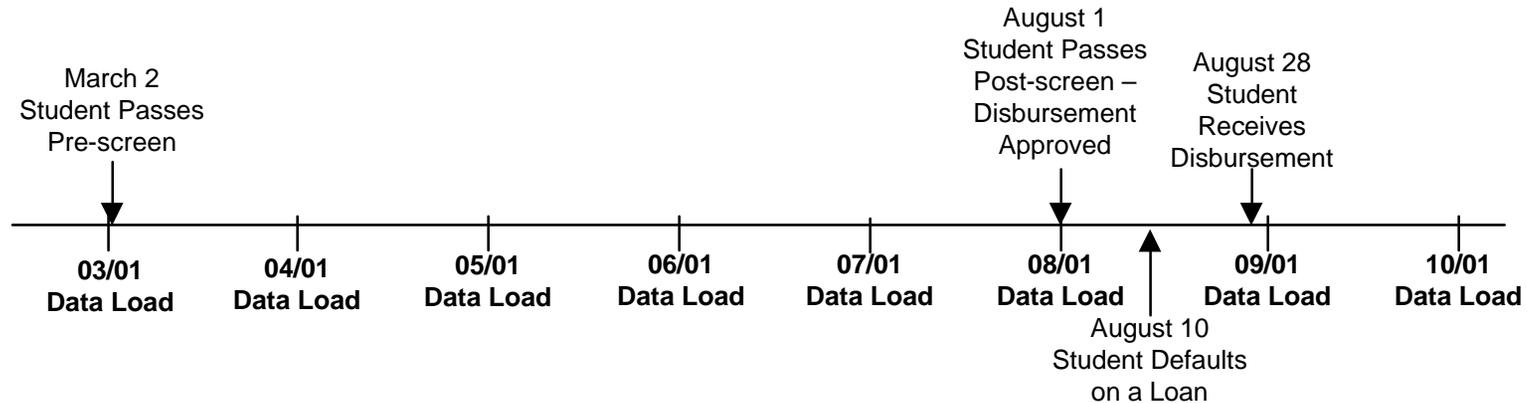
Timing Strategy



Delay disbursement decisions until fresh data arrives on 9/1. This method may match the accuracy of the fetch strategy but requires unacceptable customer service delays.

Student Aid Eligibility Post-Screening Scenarios

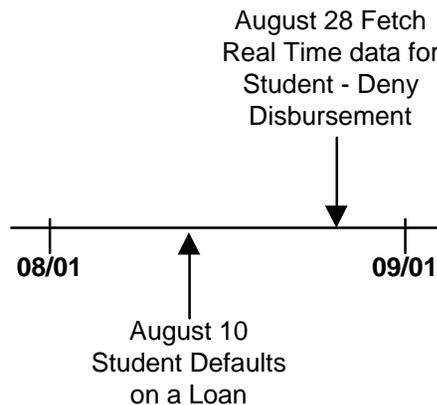
Ineligible Student Receives Disbursement – Current Process



In this scenario the student defaulted on a loan during the middle of the month of the new loan disbursement. The data feed reflecting this default did not enter the system until 9/1, AFTER this disbursement was approved. This scenario will be less likely since most students in this situation could use an in-school deferment to prevent default.

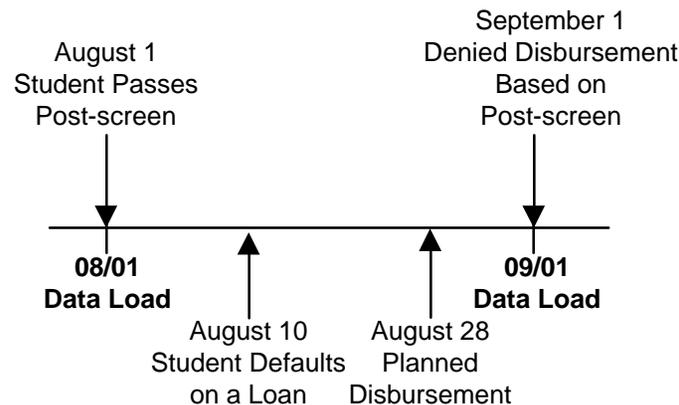
What Process Changes Can Eliminate this Problem?

Fetch Strategy



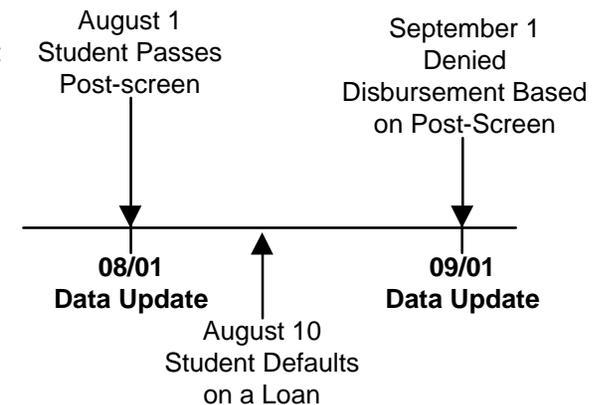
Rather than receiving quarterly / monthly feeds, simply fetch real-time data prior to major decisions, like disbursements. This also eliminates the need for the initial post-screen – in this case, on Aug 1.

Second Post-screen Strategy



Re-screen the applicant when fresh data arrives but AFTER the disbursement occurs. This strategy presumes that SFA or the Lender can recall the funds when an errant disbursement is discovered.

Timing Strategy



Delay disbursement decisions until fresh data arrives on 9/1. This method may match the accuracy of the fetch strategy but requires unacceptable customer service delays.

Student Aid Eligibility Post-Screening Scenarios

Summary

- *Fetch strategy* offers the simplest and most accurate process with the best customer service
 - Validating eligibility at time of disbursement approval assures that the decision is based on the most current available data
 - Eligible disbursements can be approved as soon as the requirements are met
- *Timing strategy* offers equal accuracy but inferior customer service
 - Delays in disbursement processing while awaiting fresh data are unacceptable
- *Second Post-Screening Strategy* complicates processing but does not prevent errors
 - After-the-fact checking only finds errors
 - Errors are usually more expensive to correct than to prevent
- *Current Strategy* allows the errors to occur potentially undetected
 - According to NSLDS experts, the percent occurrence of this error and errors related to this freshness deficiency are negligible

Financial Aid History

Function: Financial Aid History

NSLDS will maintain a student's financial aid history, thus enabling schools and students to monitor changes over time. Using a student's financial aid history enables them to determine:

- Whether the student is in default or owes an overpayment on a loan or grant
- The student's scheduled Pell grant and the amount already disbursed for the award year
- The student's balance on all loans
- The amount and period of enrollment for all loans for the award year

Schools need the flexibility to manage student access to financial aid history during loan origination.

This requirement includes the current NSLDS capability for a student to use the web to review their Title IV student aid history.

Data Requirements:

Detail Level: Individual Loan

History: None – New Transactions Only

Frequency of Use: Daily

Freshness of Data: Current (schools and students want current data, not month-old or quarter-old data)

Student Transfer Monitoring

Function: Student Transfer Monitoring

NSLDS shall enable a school to place a student that intends to transfer to its institution on a list for monitoring. This function, known as transfer monitoring, is the process of monitoring a transfer student's financial aid history and alerting the requesting school of any changes – other than the default or overpayment information reported in the post-screening process – that may affect the student's current award(s). The transfer monitoring process is made up of three steps: inform, monitor and alert.

- Inform - the requesting school must notify NSLDS of transfer student
- Monitor – NSLDS will monitor these students for a change in financial aid history that may affect current awards for a period of 90 days after the start of the term, and notify the school when a:
 - New loan or Pell grant is being awarded
 - New disbursement is being made on a loan or Pell grant
 - Loan or Pell grant (or a single disbursement is) is cancelled
 - Student's aggregate totals change
- Alert – when NSLDS creates an alert for one or more students, it will also send an email notice to the school's designated contact person

Data Requirements:

Detail Level: Individual Loan / Student

History: None - New Transactions Only

Frequency of Use: Daily

Freshness of Data: Current (Schools prefer alerts when they occur, not when they get to NSLDS)

Loan Transfer Tracking

Function: Locating the Current Holder of a Loan

NSLDS shall permit borrowers to locate the current holder or servicer of their loan. This requirement is based on the language in the Higher Education Act of 1965 as Amended. The Act states that NSLDS shall “permit borrowers to use the system to identify the current (emphasis added) loan holders and servicers of such borrower’s loan.”

Data Requirements:

Detail Level: Individual Loan

History: None – Current Only

Frequency of Use: Daily

Freshness of Data: Current (Based on legislation)

Function: Tracking Loan Transfers and Sales

Loan Transfer Tracking monitors transfer activity by maintaining dates of sale and names of loan holders. This information identifies likely problems with participants and helps evaluate the administration and billing by lenders and guaranty agencies in the FFEL loan program.

Tracking the transfer or sale of a loan from one entity to another also facilitates proper notification of the sale or transfer to the borrower. This action is the responsibility of the seller and buyer of the loan, or of the transferring parties. The seller and buyer must also notify the guarantor of the loan.

Data Requirements:

Detail Level: Individual Loan

History: All FFEL Loans

Frequency of Use: Daily

Freshness of Data: No more than 1 quarter old

Payment Reasonability

Function: Reinsurance Payments to Guaranty Agencies

NSLDS will house data capable of substantiating reinsurance payments made to Guaranty Agencies. Both current regulations and direction from OMB require that detailed level data be collected and retained to substantiate these payments.

Default payments are made to GAs once a loan is defaulted and a reinsurance claim has been paid to a lender by a GA. This compensation is monthly and is based on the submission an ED Form 2000.

Data Requirements:

Detail Level: Individual Defaulted Loan **History:** All Defaulted Loans

Frequency of Use: Monthly **Freshness of Data:** No more than 1 month old

Function: Issuance and Maintenance Fee Payments to Guaranty Agencies

NSLDS will house data capable of substantiating issuance and maintenance fee payments made to Guaranty Agencies. Both current regulations and direction from OMB require that detailed level data be collected and retained to substantiate these payments.

There are two types of quarterly maintenance fees that the Department pays to GAs. These fees are 1) Loan Processing and Issuance Fees (LPIF) and 2) Account Maintenance Fees (AMF). The LPIF is calculated as the amount of disbursements for newly guaranteed loans held by the GA for the current quarter * 0.0065. The AMF is calculated as the original principal balance of open loans (i.e., the open loan guarantee amount) * 0.001 then divided by 4 to arrive at the quarterly payment. SFA calculates these fees based on detailed records that GAs currently submit to NSLDS each month.

Data Requirements:

Detail Level: Aggregated at the Loan Level **History:** All FFEL Loans

Frequency of Use: Quarterly **Freshness of Data:** No more than 1 quarter old

Payment Reasonability

Function: Interest and Special Allowance Payment to Lenders

NSLDS will house data capable of substantiating Interest and Special Allowance payments made to Lenders in accordance with Federal credit accounting regulations. These regulations require SFA to allocate the costs of interest and special allowance payments to the fiscal year cohort, risk class, and loan types to which they apply. SFA is seeking a way to associate the loan level data submitted to NSLDS with the interest and special allowance payments so that these accounting requirements can be met.

Lenders submit ED Form 799 Quarterly to request payment of their interest and special allowance compensation.

Data Requirements:

Detail Level: Individual Loan

History: All FFEL Loans

Frequency of Use: Quarterly

Freshness of Data: No more than 1 quarter old

Cohort Default Rates

Function: Cohort Default Rate Analysis

Cohort default rate (CDR) analysis is the process of calculating and assessing draft and official CDRs and, as a result, assist in reducing the overall default rate for student loan programs. The CDR is defined as the percentage of a school's student borrowers entering repayment on FFEL or direct loans during a specific fiscal year who default on those loans during the same or following fiscal year. NSLDS will calculate draft, official and nominal CDRs for schools and/or lenders. Schools have the ability to request an on-demand report that details their potential CDRs based on data in NSLDS when the report is run.

A draft CDR is produced in March and a final CDR is produced in September. A school may challenge its draft CDR and may, in some instances, appeal or request an adjustment to its official CDR. A school with a low CDR may qualify for specific regulatory exemptions while a school with persistently or excessively high official CDRs may lose FFEL or direct loan eligibility. In addition to the draft and official CDR, ED calculates an unofficial notional CDR monthly to assist schools in monitoring their current rate on an ongoing basis.

ED also calculates and publishes FFEL CDRs for each lender and loan holder. There are currently no consequences associated with FFEL CDRs. However, the lender or loan holder can appeal its rates if it identifies discrepancies in the data.

Data Requirements:

Detail Level: Individual Loan

History: All Aid Received

Frequency of Use: 2X year, during CDR cycle plus monthly for notional CDR

Freshness of Data: Updated monthly

Enrollment Tracking

Function: Enrollment Tracking

NSLDS will support enrollment tracking, which is the process of assisting schools in reporting student status changes correctly and in timely manner to the loan holder – GA or lender. This information enables loan holders to perform the critical steps of placing a borrower into repayment grace periods and extending in-school deferments.

Status changes include the identification of borrowers who have:

- Withdrawn from school
- Transferred from one school to another
- Returned to school and is eligible for a deferment
- Continued in school and is eligible for a deferment extension

The Student Status Confirmation Reporting (SSCR) process is standardized by creating a single, consolidated roster – largely based on enrollment data from the National Student Clearinghouse - and by sending loan holders a consolidated enrollment status file of information about their borrowers.

Data Requirements:

Detail Level: Individual Student

History: All Title IV Aid Recipients

Frequency of Use: 1-2 times per term

Freshness of Data: Updated up to 6 times / year

Audit and Program Reviews

Function: Audit and Program Review Planning

Audits and program reviews are the process of verifying compliance with Department of Education regulations and as a good business practice to examine why poor default trend exist within a given institution. Audits and reviews are performed by ED and guarantors on lenders, servicers and schools. NSLDS will provide auditors and reviews with data on specific organizations to facilitate scheduling and maximize the effectiveness of reviews. The overall selection criteria for these biennial reviews are as follows:

Schools

- More than 20% cohort default rate in either of the last two years
- At the GAs discretion, review schools that:
 - Experienced a major increase or decrease in cohort default rate over the previous year
 - Are suspected of violating ED regulations based on supporting evidence

Servicers/Lenders

- Have 2% or more of the loan volume of FFEL loans guaranteed by the GA (by \$ volume)
- In the top 10 in loan volume (by \$ volume) for the GA
- Have \$10M or greater in loans held by the GA
- At the GA's discretion, review a servicer/lender that:
 - Experienced a major increase or decrease in CDR over the previous year
 - Are suspected of violating ED regulations based on supporting evidence

Data Requirements:

Detail Level: Individual Loan

History: 3 years (to support CDR for past 2 years)

Frequency of Use: Daily/On Demand

Freshness of Data: No more than 1 quarter old

Research and Policy Development

Function: Internal and External Analysis

Internal and external analysis is the process of assisting internal (CFO, OIG) and external (CBO, GAO) users in performing research, policy analysis and performance assessment of Title IV aid delivery system participants and aid programs. NSLDS will provide data at varying levels of detail – ranging from focused queries about a single student or guarantee agency to queries requiring the aggregation of large amounts of data.

Data Requirements:

Detail Level: Individual Loan

History: All Aid Received

Frequency of Use: Daily/On Demand

Freshness of Data: No more than 1 quarter old

Function: Financial Partner and School Analysis

Financial partner and school analysis is the process of providing guaranty agencies, lenders, servicers and schools with reports for researching and assessing their own performance in administering FFEL aid programs. NSLDS will provide data to support this research, which generally aims at evaluating the effectiveness of specific organizations and program practices based on short-term and long-term perspectives.

Data Requirements:

Detail Level: Individual Loan

History: All Aid Received

Frequency of Use: Daily/On Demand

Freshness of Data: No more than 1 quarter old

Budget Formulation and Execution

Function: Budget Development

Budget development is the process of developing input for the President's budget – based, in part, on projected loan program costs for a seven-year period. NSLDS information will be used to develop reliable, sound forecasts and program estimates for the Department of Education budget.

Data Requirements:

Detail Level: Aggregated at the
Loan Program Level

History: All Aid Received

Frequency of Use: Annually, during
Budgeting Cycle

Freshness of Data: No more than 1 quarter old

Function: Budget Analysis

Budget analysis is the process of assisting SFA – in particular, the Analysis and Forecasting Division – in responding to budget-related questions from other entities within the Department of Education as well as OMB. NSLDS will also assist in performing necessary hypothetical analysis.

Data Requirements:

Detail Level: Aggregated at the
Loan Program Level

History: All Aid Received

Frequency of Use: Daily/On Demand

Freshness of Data: No more than 1 quarter old

**Strawman
Design
Updates**

NSLDS II Strategy Overview

Four Part Strategy

Fetch Strategy

- Up-to-the-minute data
 - e.g., student Title IV eligibility checks
- Data by individual student

Common Record Convergence

- Universal standard for describing Title IV data by student
- Goal of supporting all student-specific data exchange within community

Data Feed Re-Engineering

- Integrate payment and data reporting processes
- Address SFA financial integrity issues
- Limit/reduce burden on partners
- Integrate NSLDS and NSC enrollment data

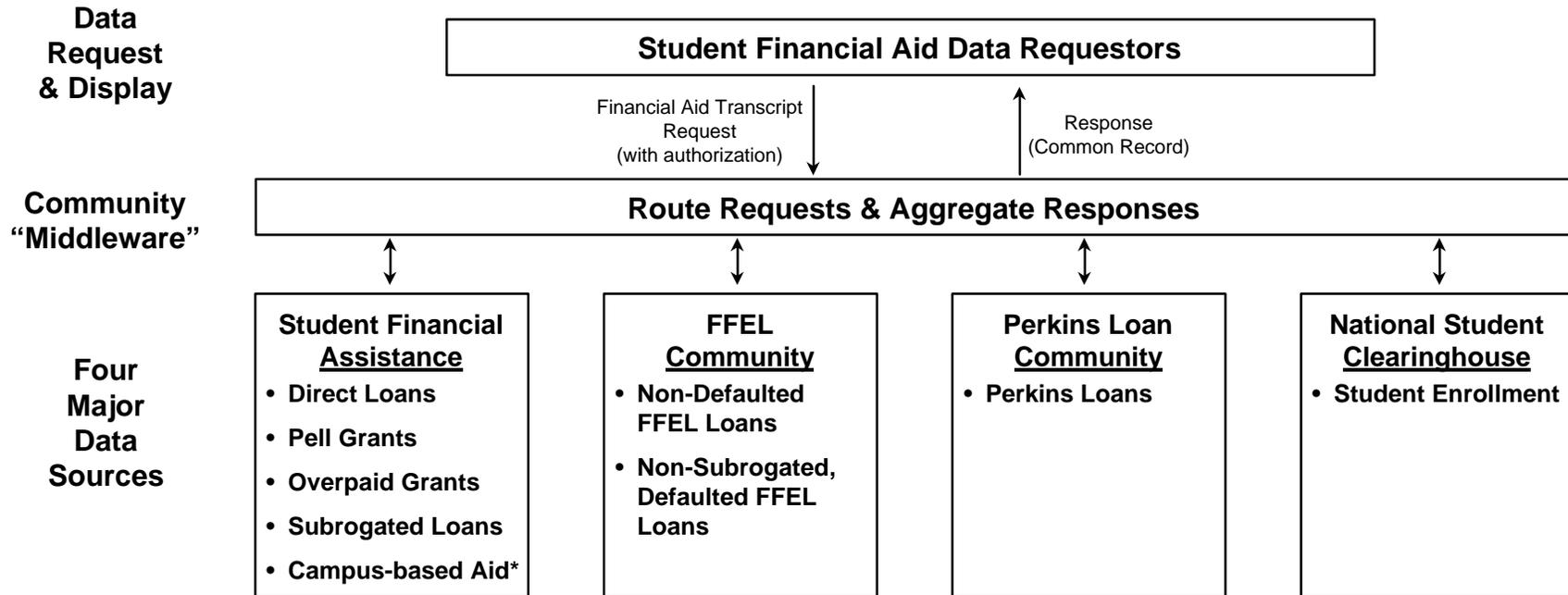
Data Mart Strategy

- End-of-period data focus
- Data by groups of students or institutions
- Improve access and analytical tools

Fetch Strategy • Operate in real-time • Allow for real-time updates • Data is available to all users	Common Record Convergence • Common record for matching Title IV data to existing data in the community • Data is available to all users
Data Feed Re-Engineering • Re-engineer data feeds • Address data quality issues • Integrate data from multiple sources • Integrate NSLDS and FISC systems	Data Mart Strategy • Data is available to all users • Data is stored in a separate system • Data is available to all users

Fetch Strategy Overview

The “fetch” strategy provides for real-time access to systems of record for Title IV student aid information by all authorized financial aid professionals, students and other NSLDS users.

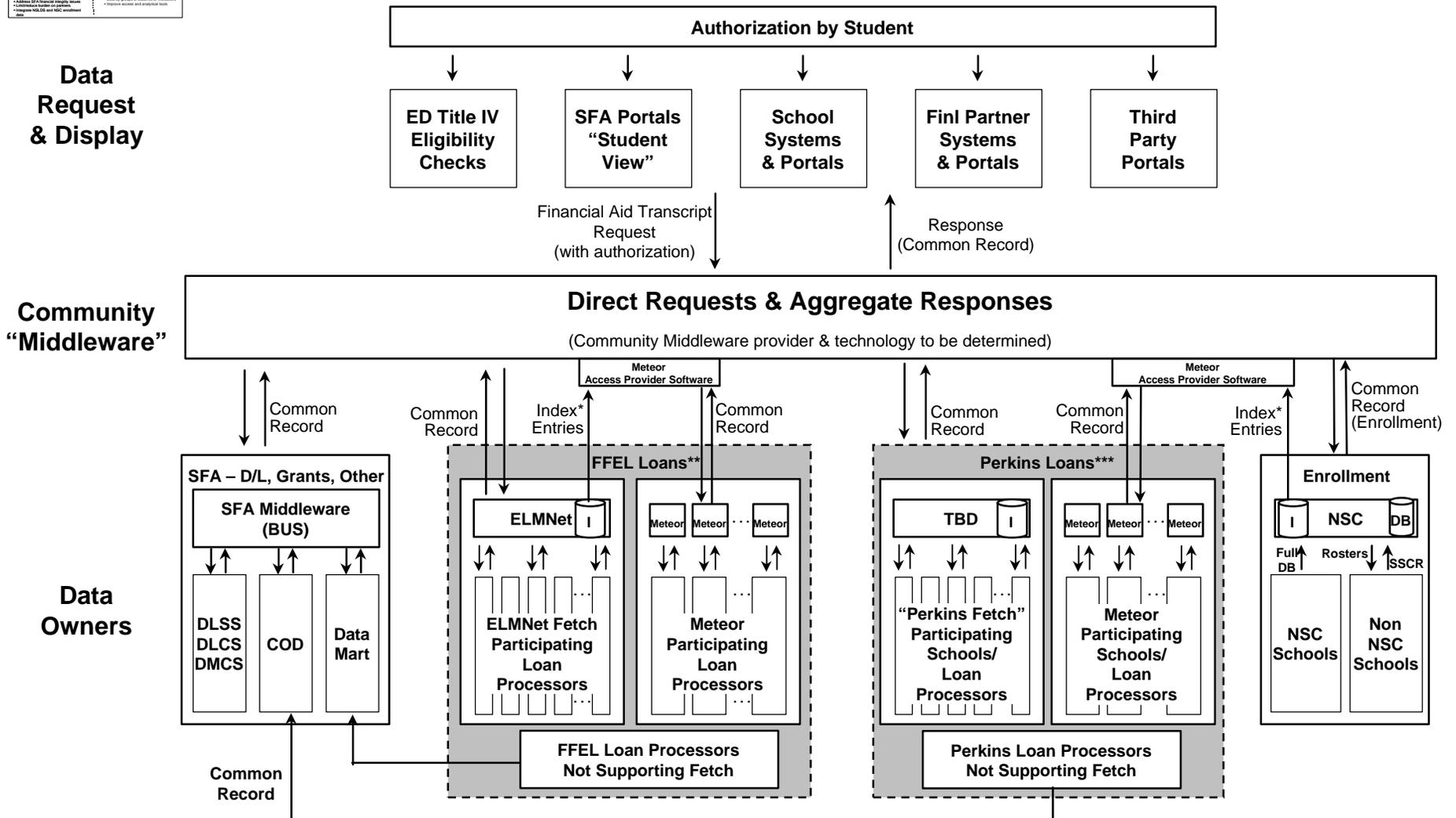


*Schools are the true system of record for Campus-based aid, but we do not envision pursuing a fetch strategy against school data systems

NSLDS II Hi-Level Requirements

Fetch Strategy • Use the Fetch Strategy to... • Use the Fetch Strategy to...	Common Record Convergence • Common Record for... • Common Record for...
Data Feed Re-Engineering • Re-engineer... • Re-engineer...	Data Mart Strategy • Data Mart Strategy... • Data Mart Strategy...

Fetch Strategy



* Unclear whether Meteor will use ELMNet index, NSC index, or both. ELMNet may not agree to allow Meteor software to use its index. NSC index was used in the reference implementation of Meteor.

** Diagram shows ELMNet & Meteor as alternatives in FFEL Fetch Strategy in order to depict how each would work. Open issues remain before their relative roles can be determined. The diagram does show one way the two approaches could co-exist if FFEL community chooses to support both.

*** Perkins loan fetch could be supported in a manner similar to FFEL (possibly with ELMNet as a Perkins fetch integrator) or by SFA if Perkins Loan data is reported often enough to SFA.

<p>Fetch Strategy</p> <ul style="list-style-type: none"> • Operate on live data • Daily updates provided by systems of record • Accessible to all authorized and authenticated Title IV participants 	<p>Common Record Convergence</p> <ul style="list-style-type: none"> • Common record for searching Title IV data by location, date, and other attributes • Accessible to all authorized and authenticated Title IV participants
<p>Data Feed Re-Engineering</p> <ul style="list-style-type: none"> • Standardize data feeds • Address data quality issues • Standardize metadata • Support PESC XML standards as they evolve 	<p>Data Mart Strategy</p> <ul style="list-style-type: none"> • Daily updates provided by systems of record • Accessible to all authorized and authenticated Title IV participants

FFEL Fetch Capability* Key Building Blocks, Requirements & Candidates

Infrastructure

Business Model
ELM or Meteor

- Sustainable, performance-based organization
- Ongoing funding for fetch product
- Incentives for data and index providers to participate
- Arrangement enables SFA to force compliance with critical Title IV requirements

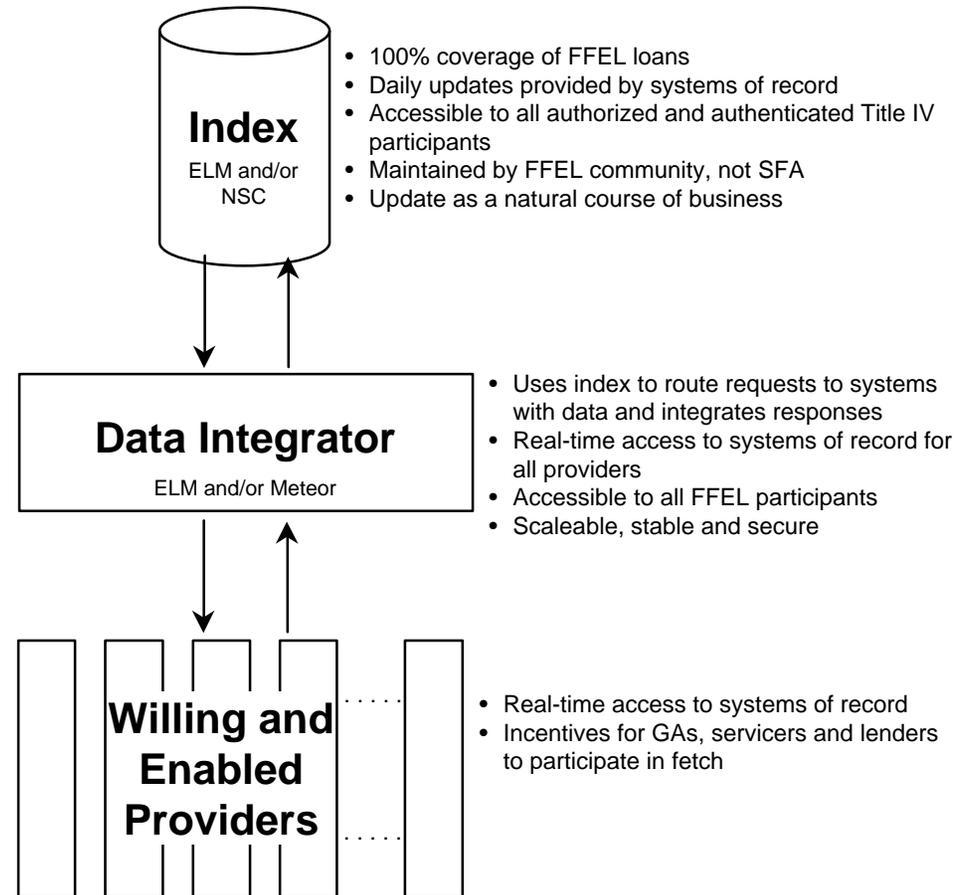
Technical Support
ELM or Meteor

- Reliability and disaster / recovery
- Security and authentication standards
- Installation and help desk support
- Well-managed software distribution / version control
- Maintenance and enhancement of fetch capability

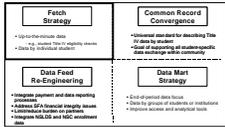
Data Standards
Common Record and/or CommonLine and/or CAM

- Reflect community consensus on data exchange format
- Accommodate all pre- and post-origination processes
- Support PESC XML standards as they evolve

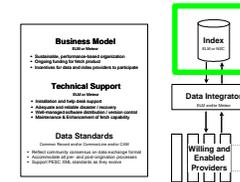
Core Components



*Perkins Fetch building blocks & requirements are similar but candidates differ



FFEL Fetch Index Requirements



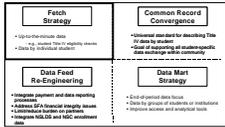
- **Coverage**
 - 100% coverage of all but subrogated FFEL loans

- **Update Frequency and Source**
 - Daily index updates provided by systems of record.
 - Data system that services the loan is considered the system of record.
 - Updates can be event-driven, reporting only when index data changes, but should occur within 1 day of change.
 - Frequent updates are critical to ensure that fetch can find the loan data

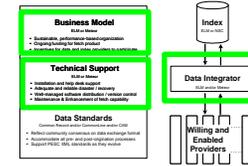
- **Accessibility**
 - Open Index accessible to all authorized and authenticated Title IV participants

- **Control**
 - Controlled by the FFEL community, not by SFA

- **Update Integration with Business Processes**
 - Index updated as a natural course of business processes
 - Not an add-on process solely to support fetch
 - Integration with business process should create incentives to support index accuracy that is stronger than fetch capability alone



FFEL Fetch Data Integrator Requirements



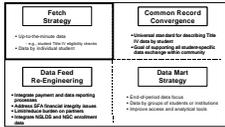
- **Coverage**
 - All Title IV aid systems of record provide real-time fetch access to their data
 - Provides business rules to seek out backup data provider if the system of record is inaccessible
 - Access to suitable index
 - May use access to multiple indexes if needed for 100% coverage (e.g., ELM, NSC)

- **Business Model**
 - Provides for ongoing funding of these services
 - Contract for performance incentives that sustain and improve high performance
 - Installation and help desk support for schools and lenders
 - Incentives for data and index providers to participate

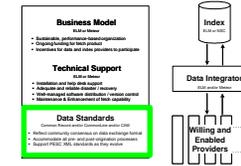
- **Accessibility**
 - Open access to all FFEL participants

- **Technical Architecture**
 - Scale to support anticipated workloads
 - Adequate and reliable disaster / recovery
 - Common authentication mechanism (e.g., SFA PIN site)

- **Software Distribution Strategy**
 - Minimizes version control issues



FFEL Fetch Data Standards

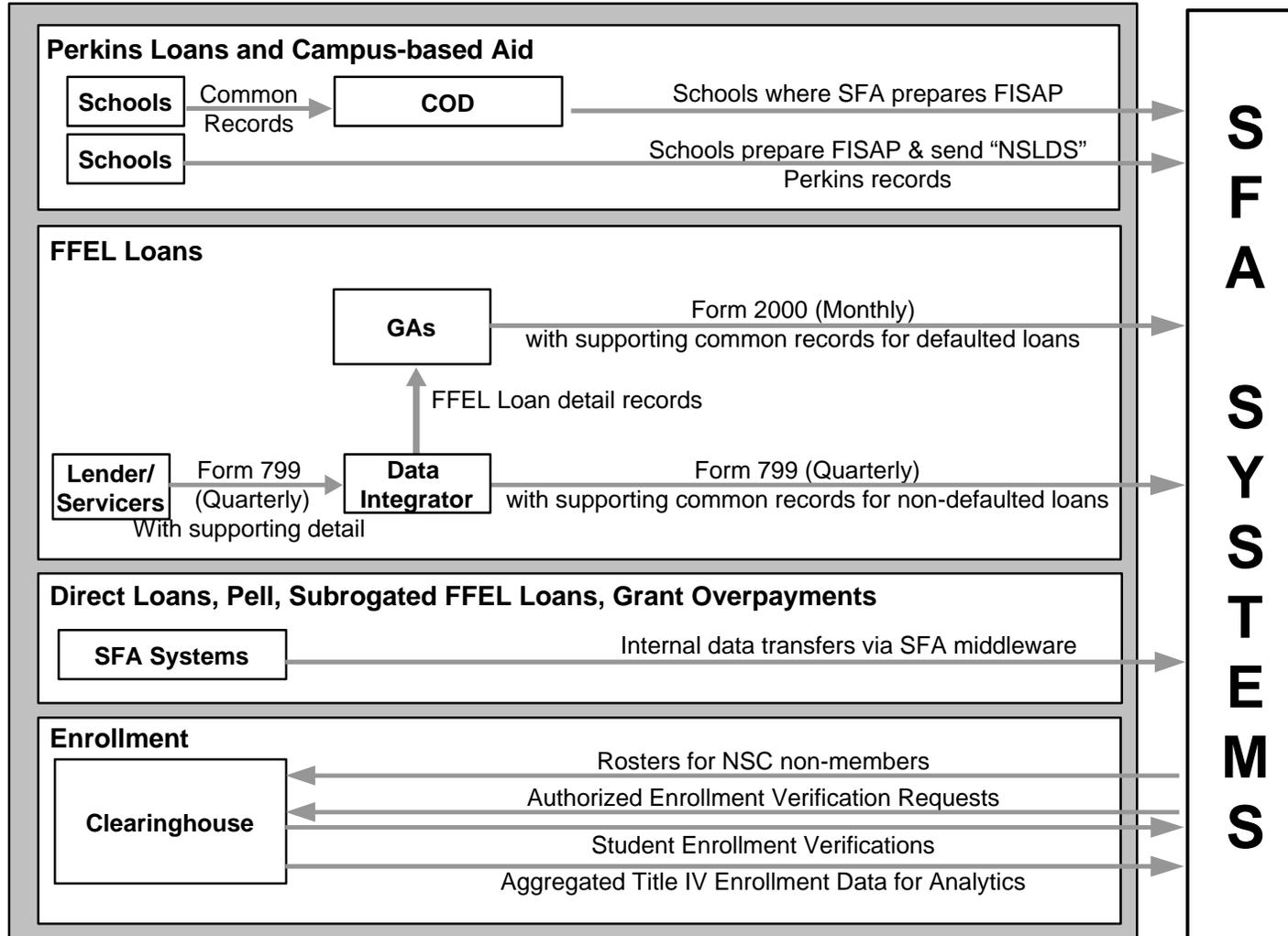


- **End-to-End Support**
 - Provides data exchange formats for all aid origination, disbursement and servicing activities
- **Cross Platform / Cross Community Communication**
 - Provides a common data exchange language for use in passing transactions, updates and whole records between all data providers and requesters within the Financial Aid Community.
- **Program Coverage**
 - Support Direct Loans, Pell Grants, FFEL Loans, Perkins Loans, alternative loans, etc.
 - Flexibility to easily accommodate new loan programs or changes to existing programs
- **Standards Compliance**
 - Meets PESC requirements
 - Common data standards / dictionary
 - XML standard
- **Common Identifier**
 - Exchanging data in a common format, with a common unique identifier, would inherently improve the accuracy of data exchange between all systems

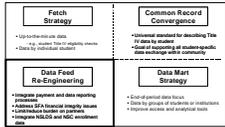
NSLDS II Hi-Level Requirements

Fetch Strategy <ul style="list-style-type: none"> • Up-to-the-minute data • Daily updates (real-time, hourly, weekly) • Daily (NSLDS) updates 	Common Record Convergence <ul style="list-style-type: none"> • Common record for matching Title IV data to existing or re-engineered data through all components
Data Feed Re-Engineering <ul style="list-style-type: none"> • Integrate, transform and load existing • Automate data feeds • Integrate NSLDS and NSC systems 	Data Mart Strategy <ul style="list-style-type: none"> • Data by group of students or institutions • Report across all categories

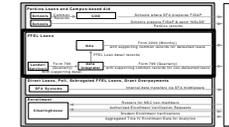
Data Feed Re-Engineering*



*Diagram depicts how external data feeds might be integrated with business processes. Other options exist. Later design work will need to verify that re-engineered data feeds include all business events currently reported to SFA.



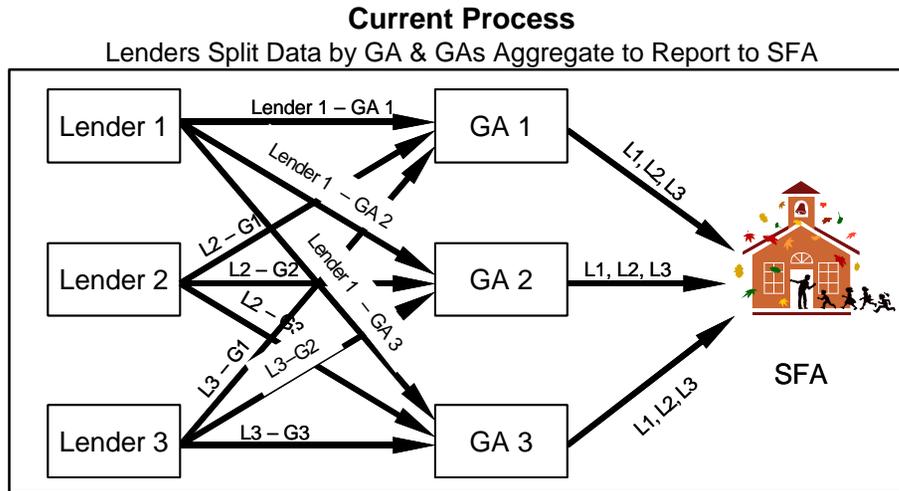
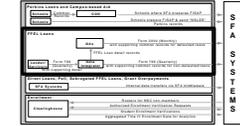
Fee Payment Integrity Strategy Overview



SFA Payment Type	Primary Financial Integrity Strategy	Modernization Project	Target Date
FORM 799- Interest subsidy & special allowances payment to Lenders	<ul style="list-style-type: none"> Payment amount determined by lender from lender source system records on a quarterly basis Lender/servicer accuracy audited and reviewed by ED, independent auditors and reviewing entities (E.g. ED OIG) and by GAs that lender/servicer supports Hundreds of audits have not identified material adjustments in the aggregate in recent years, reinforcing viability of this integrity strategy Form 799 currently filed in paper form and stored and processed in standalone system. Redesign will replace paper form with a web-accessible and integrated financial management system that includes the lender payment data. SFA & submitting partners will have access to the Form 799 information in a data mart NSLDS II Re-engineering will consider possibility of asking Form 799 submissions to include loan detail data currently reported to GAs with the payment amounts by loan. SFA could use this data to substantiate the payment request totals on the Form 799. Such expanded lender reporting would replace the loan detail data for non-defaulted loans that GAs currently report to SFA. The FFEL data feed integrator strategy on the prior page is aimed at alleviating some of the added processing burdens such detailed invoice reporting could impose on lenders. 	<p>Current process</p> <p>Move from paper to web planned by Lender Payment Redesign project</p> <p>NSLDS II</p>	<p>Current process</p> <p>Web process go live in Summer 2002</p> <p>Depends on results of NSLDS II design work</p>
FORM 2000 – Default payoff reimbursements to GAs	<ul style="list-style-type: none"> Payment amount determined by GA and supported by detailed records of defaulted loans submitted with invoice. Total of defaulted amount by loan must foot to amount claimed by GA on FORM 2000 SFA evaluates default loan records submitted with invoices to prevent duplicate payments on loans. Detail records filed with Form 2000 used to update SFA financial records to recognize FFEL defaults 	NSLDS II	Begin transition in FY03
AMF & LPIF payments to GAs	<ul style="list-style-type: none"> Payments calculated by SFA using loan detail data submitted to NSLDS by GAs NSLDS II should improve the quality of the FFEL loan detail data that SFA uses to determine the fee amounts. 	<p>Current process</p> <p>Improvements from NSLDS II</p>	Begin implementing improvements in FY03.
Campus-based aid payments to schools	<ul style="list-style-type: none"> Payments based on summary information filed by schools on their FISAP. All FISAPs filed electronically via the web with current and historical filed data accessible to school personnel. Plan is to give schools the option to have SFA calculate their FISAP based on detailed campus-based aid data that schools submit to COD using common records. This is an optional improvement as SFA cannot currently compel schools to provide such detail without potential statute changes. 	COD & eCB	<p>March 2002 accept data</p> <p>July 2003 Create FISAPs</p>

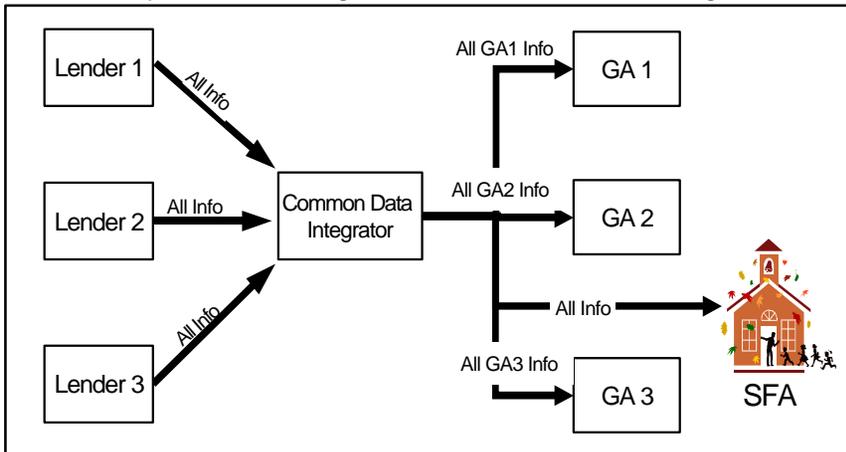
Fetch Strategy	Common Record Convergence
<ul style="list-style-type: none"> • Up to the data source • Daily, weekly, monthly, quarterly • Daily, weekly, monthly 	<ul style="list-style-type: none"> • Common record for matching the data to the source • Daily, weekly, monthly, quarterly • Daily, weekly, monthly
Data Feed Re-Engineering	Data Mart Strategy
<ul style="list-style-type: none"> • Mapping, reformatting and data re-engineering • Mapping of data to the target system • Mapping of data to the target system • Mapping of data to the target system 	<ul style="list-style-type: none"> • Data to be processed in real-time • Data to be processed in real-time or on-demand • Data to be processed in real-time or on-demand

Lender* Invoicing and Data Reporting Options



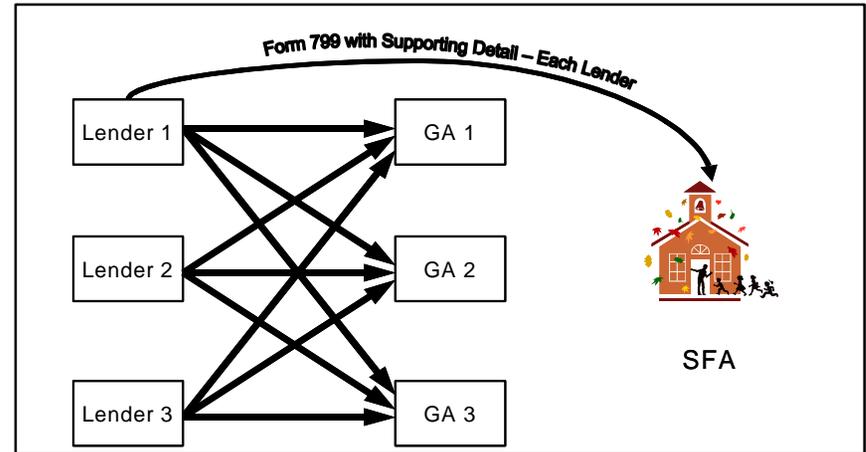
Option 1 – FFEL Data Feed Integrator

Lenders report once to integrator. GAs & SFA receive integrated data

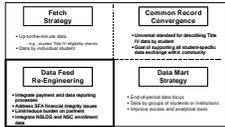


Option 2 – No FFEL Data Feed Integrator

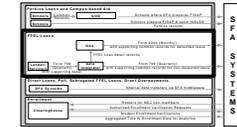
Lenders split data by GA and invoice SFA with details



**"Lender" refers to organizations that service loans regardless of whether they are a GA, lender, lender/servicer, etc.



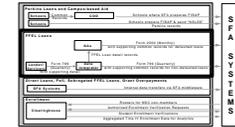
Current Lender Payment Process and Financial Controls



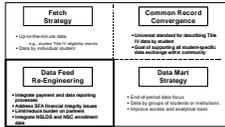
- Statutory interest subsidy formula requires details about every loan transaction that affects a loan's daily outstanding principal balance
 - Such details are only available in lender/servicer source systems.
 - Loan-level data submitted to SFA today is not sufficient to determine daily balance by loan even if provided on a more frequent basis
- Lenders apply statutory formula to source system data to determine payment amounts owed by SFA
 - Form 799 used to submit payment information to SFA
- SFA processes payments based largely on Form 799 data, relying upon accuracy of lender source system
- Guaranty Agencies review accuracy and integrity of lender source systems for lenders that hold loans that they guarantee
 - Review findings can be used to adjust lender payments as appropriate
 - GAs report review results to SFA
 - Net result is all major lender/servicers are reviewed multiple times over the course of a year. For example, 1 major lender/servicer was reviewed 23 times last year by separate GAs
 - Nationwide, this policy results in thousands of annual reviews of lender source systems
- Additionally, most lenders must submit to annual independent audits of their payments and to regular review by ED of their systems and processes
- Audit results reinforce contention that lenders payment requests are materially accurate and that current controls are working
 - Total net payment adjustments as a result of many reviews/audits are less than 0.3% of total payment amount
 - In FY99 - Net adjustment of \$5.6 M out of annual lender payments of about \$2,500 M

<p>Fetch Strategy</p> <ul style="list-style-type: none"> • Up-to-the-minute data • Daily updates (once nightly batch) • Daily refresh (batch) 	<p>Common Record Convergence</p> <ul style="list-style-type: none"> • Common record for matching the ID (SSN, Student ID, etc.) • Common record for matching with the ID (SSN, Student ID, etc.)
<p>Data Feed Re-Engineering</p> <ul style="list-style-type: none"> • Integrate, reformat and clean existing data • Integrate data from multiple sources • Integrate data from multiple sources • Integrate NSLDS and NDC external data 	<p>Data Mart Strategy</p> <ul style="list-style-type: none"> • Data by group of students or institutions • Report access and management tools

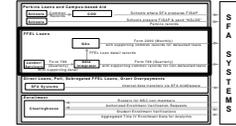
Potential Issues Raised By OMB



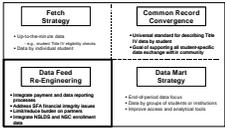
- Key Concerns
 - Volume re-estimates of earlier cohorts occur repeatedly
 - Acknowledges that changes are not material but does not see why they should occur at all. Concern that changes may indicate control weaknesses.
 - SFA is required to do cohort-based accounting
 - “cohort” year = FY of obligation, not school year cohorts
 - OMB perceives a need for *transaction level* basis to attribute costs by risk class, cohort (FY) year & loan type
 - Transaction-based accounting vs. estimates used today
 - Cohort based funds control
- Other Concerns
 - GA as intermediaries seems an “odd” approach given modern technology
 - SFA spent \$360M on GAs (AMF & LPIF fees)
 - Is this expense necessary?
 - Acknowledged that GAs are good at default management
 - Need for improvements in data on GA collection activity on defaulted loans.
- Non-Issues
 - Does not expect SFA to create a duplicate loan servicing system for FFEL
 - This was a misunderstanding of OMB passback comments



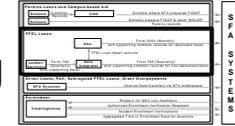
Cohort-Based Accounting Requirements for FFEL Loans



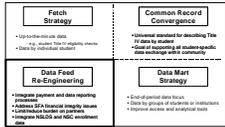
- SFA needs to allocate FFEL costs by risk class, type of loan, and cohort year to comply with Federal Credit Reform Act.
 - Risk class
 - Risk is solely based on the type of school that the borrower will attend.
 - E.g., Four-year schools are different risk class than proprietary schools
 - Can be determined from the school identifier on the loan
 - Cohort year
 - Refers to the federal fiscal year that the credit was granted.
 - Can be determined from the loan’s origination date.
 - Type of loan
 - About 25 types of loans are outstanding.
 - Variety is the result of changing loan terms over time plus variety of programs
 - Fee calculations can differ by type of loan
 - Determined by the loan type identifier on loan records submitted to NSLDS.



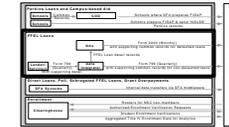
Concerns with Current Cohort-Based FFEL Accounting



- SFA uses estimates and approximations to allocate FFEL costs to cohort year, risk class & loan type.
 - Estimates affect both accruals for future costs of loan obligations as well as attribution of actual costs to cohorts, risk classes & loan types.
 - Federal Accounting guidelines require that SFA have detail data to support these allocations
 - Form 799 does not require sufficient detail to directly allocate these costs
- NSLDS loan level data contains detail needed to allocate costs
 - Already identifies loan type, school and origination date for each FFEL loan
 - However, current business processes, timing constraints and system designs make it impractical to reconcile FFEL fee payments to the detail data in NSLDS
 - NSLDS was never designed to support financial management requirements
- OMB is asking that SFA change its processes so that it can tie the allocation of FFEL costs to supporting detail data on a timely basis



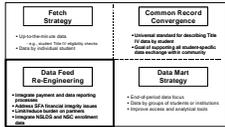
Possible Cohort Accounting Solutions



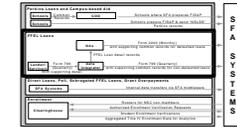
- Loan Level Approach
 - Ask lenders to calculate Interest Subsidy and Special Allowance Payments at a loan level and add this fee amount to the data they currently submit to NSLDS.
 - SFA could accumulate the individual loan level fees calculated by the lenders to determine the total fee payment due to the lender.
 - Sum of individual loan level fees should match the amounts claimed on lender invoices
 - This approach requires that SFA correct any timing and data quality issues with the current FFEL data reporting processes.

- Lender Portfolio Level Approach
 - Require that lender invoices detail their portfolio amounts by risk class, loan type, and FY cohort and then calculate their fee amounts from this detail.
 - Lenders would need this data to calculate the fee amounts so the requested detail should already be available.
 - Detail would enable SFA to substantiate the fee calculation
 - If needed, SFA could then allocate the fee amounts from the invoice to the individual loan records in NSLDS II

- Both approaches continue to rely on lender systems to determine the average daily balance for each loan.
 - Independent audits, as well as GA and ED reviews, would assure material accuracy of such lender calculations

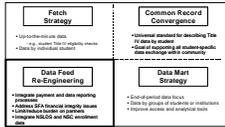


Loan Level Approach Considerations

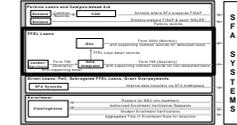


- Advantages
 - SFA has full visibility into the detail behind the lender interest subsidy and special allowance payments.
 - Improves quality of detail data provided to SFA
 - Link to fee payment gives both sides strong incentives to pay attention to data quality
 - Improved FFEL program auditability
 - This is the approach diagrammed on the prior pages

- Disadvantages
 - Expands volume of data that SFA receives
 - Including fee amount requires updating data for every FFEL loan every month. Current process only reports a loan when data changes
 - Lenders may not be able to calculate fees at loan level
 - Current fee calculation process for some (many?) lenders first sums portfolio balances and then applies fee formulas



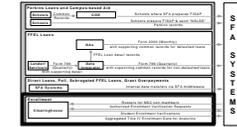
Lender Portfolio Level Approach Considerations



- Advantages
 - Potentially less burdensome on lenders as they should already have the additional data that SFA will request
 - Less data for SFA to process and manage should make payment process more efficient

- Disadvantages
 - Relies on lender systems to accumulate portfolio statistics accurately
 - Provides SFA with less detail than loan level approach
 - Does not link loan detail as closely to payment processes as does the loan level approach.
 - However, improved quality still needed to allow SFA to use loan detail data to perform reasonability checks on lender portfolio statistics
 - Fee cost by loan information based on allocation rather than direct calculation

Fetch Strategy <ul style="list-style-type: none"> • Update the data • Daily update (once daily, twice) • Daily (NSLDS update) 	Common Record Convergence <ul style="list-style-type: none"> • Common record for identifying Title IV data • Common record for identifying Title IV data • Common record for identifying Title IV data
Data Feed Re-Engineering <ul style="list-style-type: none"> • Common record for identifying Title IV data • Common record for identifying Title IV data • Common record for identifying Title IV data 	Data Mart Strategy <ul style="list-style-type: none"> • Data by group of schools or institutions • Common record for identifying Title IV data



Common Enrollment Database Key Building Blocks & Requirements

Infrastructure

Business Model

- Sustainable, performance-based organization
- Ongoing funding for enrollment database
- Incentives for schools to participate
- Does not require membership fee for minimal Roster/SSCR processing
- Arrangement enables SFA to force compliance with critical Title IV requirements

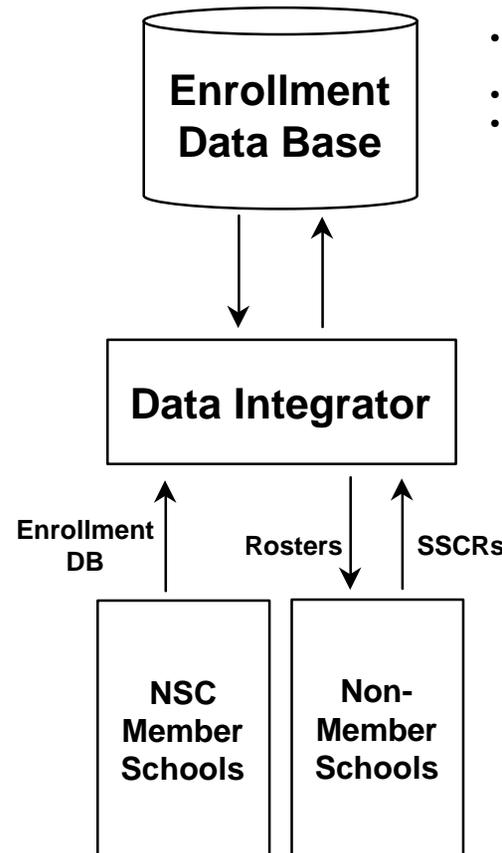
Technical Support

- Reliability and disaster / recovery
- Installation and help desk support
- Maintenance and enhancement of database

Data Standards

- Support Common Record
- Support current SSCR data standards
- Support PESC XML standards as they evolve

Core Components



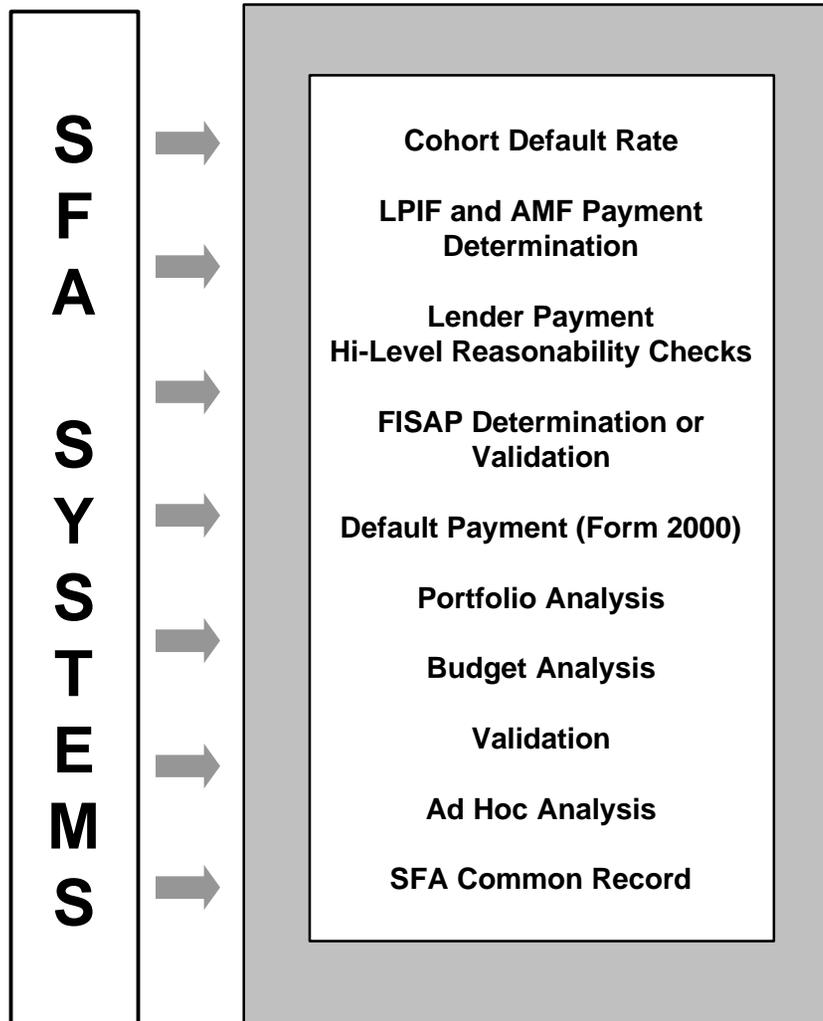
- 100% coverage of enrollment for Title IV participants
- Updated 6-8 times per year by each school
- Contents match current NSLDS enrollment data at a minimum

- Accessible to all Title IV participants
- Scalable and stable
- Security and authentication standards
- Can produce rosters (or pass on SFA-generated rosters) asking non-member schools to confirm enrollment (SSCR processing)
- Ability to interact with SFA applications using EAI bus

- Schools voluntarily choose whether to become NSC members
- Change in SSCR processor from current contractor to NSC should be transparent to non-member schools

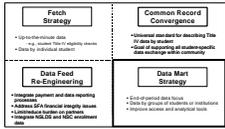
<p>Fetch Strategy</p> <ul style="list-style-type: none"> • Support for multiple data sources • Support for multiple data sources • Support for multiple data sources 	<p>Common Record Convergence</p> <ul style="list-style-type: none"> • Support for multiple data sources • Support for multiple data sources • Support for multiple data sources
<p>Data Feed Re-Engineering</p> <ul style="list-style-type: none"> • Support for multiple data sources • Support for multiple data sources • Support for multiple data sources 	<p>Data Mart Strategy</p> <ul style="list-style-type: none"> • Support for multiple data sources • Support for multiple data sources • Support for multiple data sources

Data Mart Strategy



Key Design Considerations

- Exploit existing SFA data marts where practical
- Consider opportunities to summarize older data for primary data marts, holding details in lower cost storage methods
- Align update frequencies to analytical requirements
 - Fetch will ultimately support transaction-based requirements



Data Mart Strategy Summary

A data mart strategy that provides for a Title IV aid data repository and modern analytical tools is an essential component of a reengineered NSLDS, and is a prerequisite to implementing the fetch strategy once it has matured.

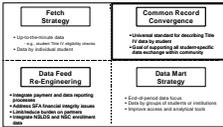
- The data mart offers a superior approach for meeting the following NSLDS business requirements:
 - Student Eligibility Pre-screening
 - Payment Reasonability Checks
 - Enrollment Tracking
 - Draft and Final Cohort Default Rate Calculation
 - Planning and Execution of Audit and Program Reviews
 - Research and Policy Development
 - Budget Formulation and Execution
- Batch submissions to the data mart can meet business requirements where fetch is the preferred approach if process improvements and minor compromises are accepted to address risks of dated information
 - Two main types of compromises
 - Delaying action until the batch process provides fresh data
 - Acting on potentially dated information, then re-validating actions once fresh information is available
 - Compromises can make sense when the costs of error, or the potential for error, is small
 - High cost example: disbursing funds for a recently ineligible student
 - According to information gathered from current NSLDS experts the percentage of this occurrence is negligible.
 - Low cost example: neglecting to alert a borrower to a recently transferred loan
- These compromises may be acceptable depending on the answer to the following questions:
 - How often do errors occur today (e.g., disbursements for ineligible students)
 - Customer service value of preventing potential errors inherent with using dated information
 - Incremental cost to implement fetch strategy relative to cost of expected errors from dated information

<p>Fetch Strategy</p> <ul style="list-style-type: none"> • Update NSLDS data • Data by institution or agency • Data by institution or agency 	<p>Common Record Convergence</p> <ul style="list-style-type: none"> • Common record for matching Title IV data • Data by institution or agency • Data by institution or agency
<p>Data Feed Re-Engineering</p> <ul style="list-style-type: none"> • Common record for matching Title IV data • Data by institution or agency • Data by institution or agency 	<p>Data Mart Strategy</p> <ul style="list-style-type: none"> • Data by institution or agency • Data by institution or agency • Data by institution or agency

Data Mart Strategy Summary (cont.)

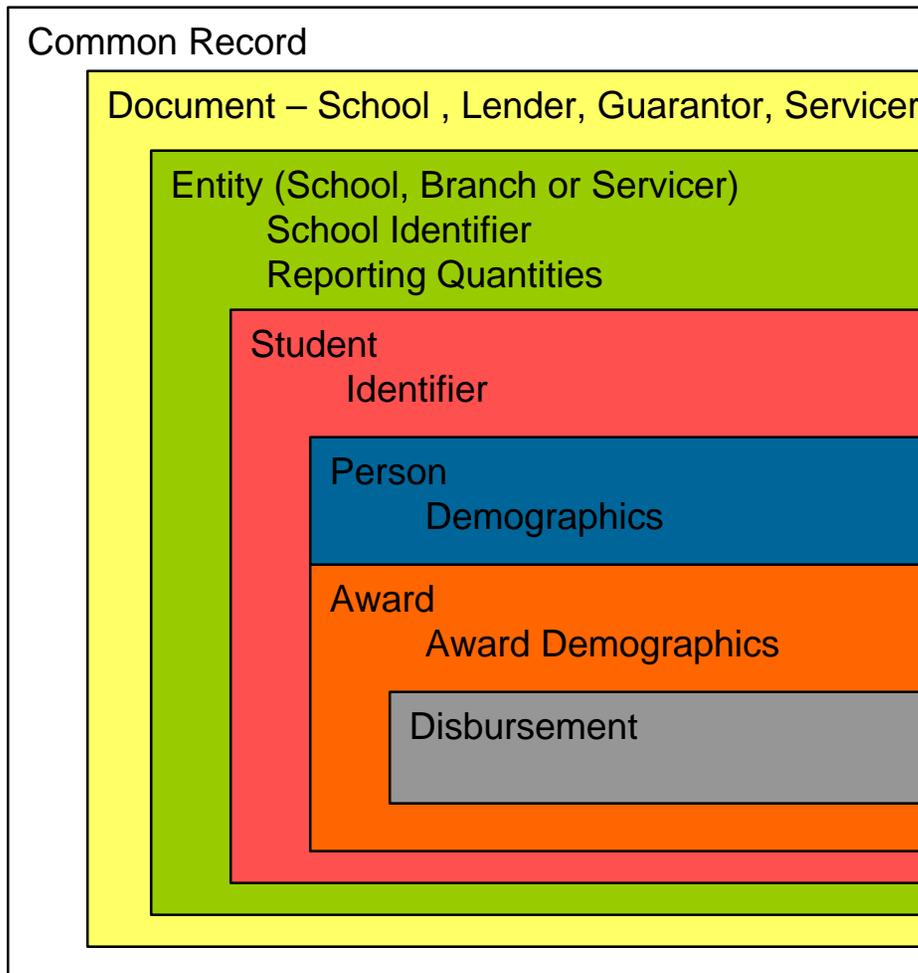
To strengthen the data mart, and improve data feeds by providing a consistently higher quality of data, the feeds should come from source systems.

- The data mart strategy must recognize and differentiate when the lender and when GA system is the system of record for data
 - The system of record for:
 - Non-defaulted FFEL loans is the lender’s system
 - Defaulted FFEL loans that have not been subrogated to the Department is the GA’s system
 - All other loans and grants is a system within SFA
 - All updates should come from systems of record – end most direct updates to NSLDS
 - Practice of updating NSLDS independent of lender/GA source system perpetuates data integrity problems
 - A band-aid solution made necessary by delays and difficulties in getting updated data to NSLDS
 - Need a means to periodically “refresh” NSLDS records with system of record information
 - Potentially enable periodic full replacement of NSLDS records as a supplement to the changes-only reporting used exclusively today.
 - Record replacement is a common method for refreshing data mart contents with system of record data
- Recognition as systems of record may demand stronger edit rules in Financial Partner systems in cases where current edit rules cause justified NSLDS rejects today.



Common Record Convergence

For NSLDS reengineering to be successful, it will also be necessary to reach community consensus on the format for data exchange. Illustrated below is today’s Common Record standard and the likely extensions implied by NSLDS re-engineering ideas.



NSLDS II Implied Extensions

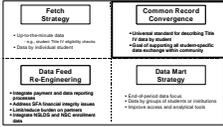
- Repayment (CAM)
- Guarantor Approval
- Expanded Enrollment Data

Other Extensions

- Application (ISIR, SAR)
- State Grants
- Health Professional Loans
- Institutional Eligibility

Routing Additions

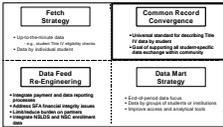
- Requests from Students
- Requests from SFA



Common Record Convergence (cont.)

The Common Record is one of three data exchange formats in use today within the financial aid community. A convergence of these standards is desired by most community members, but there are significant obstacles hindering a timely migration to a single standard.

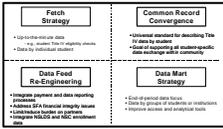
- The Common Record is the most codified XML standard and will be used (March) for the origination and disbursement of Direct Loans and Pell Grants. Extensions are needed to accommodate:
 - FFEL and alternative aid programs
 - Repayment and servicing activities
- CommonLine5 is the most recent version of the FFEL community origination and disbursement data exchange standard. Like the Common Record, it also has a number of gaps:
 - It is not XML based
 - There are multiple versions that members of the community are using and supporting today
- CAM is the evolving standard for post origination data exchange between Lenders, Servicers, and GAs. CAM is a flat-file-based, fixed record length format and is specifically tailored to the post-origination, transaction based processes of the FFEL community.
- One of the most significant barriers to the convergence to a common standard in the migration of thousands of lender, servicer and GA proprietary systems to meet an XML based common standard
 - As a starting point, work is underway to develop a common data dictionary



PESC XML Convergence Strategy*

- Multiple XML schemas integrated by common data definitions
 - Individual schemas designed to support major transaction sets
 - Supported by a common data dictionary that defines the data fields used in all XML specifications
 - A single schema to support all financial aid student-level business transactions judged by PESC to be too complex to be practical
- Example:
 - Meteor XML specification for exchanging student data does not use the Common Record XML schema but reportedly does use the Common Record data definitions where they overlap with Meteor’s data needs
 - Current common record specification focuses on Pell/DL origination needs
- PESC strategy offers flexibility of using smaller, less complex XML schemas that are targeted to specific needs and could require agreement from fewer parties. Risk could be a proliferation of schemas that reduces the hoped for benefits from standardization.

*Based on comments by Paul Ness of Sallie Mae, PESC XML Steering Committee member



Key Questions for Further Investigation

• Fetch Strategy

- Is a fetch strategy valuable?
 - Is there a compelling business case for using the fetch strategy to support major business requirements?
 - Are there acceptable compromises where the data mart can be used to meet these requirements?
- How will the FFEL fetch index requirement be met?
 - Does SFA want to actively foster one solution over another?
- What type of authentication mechanism(s) will be established?
 - Will SFA allow the community greater use of the PIN site as a central authentication reference for student identifiers?
 - Will SFA establish a central authentication mechanism for financial aid administrators?

• Data Feed Re-Engineering

- How will cohort accounting requirements be satisfied?
 - How will tradeoffs between improving the quality of detailed data and reducing burden of processing high volumes of data be balanced?

• Data Mart Strategy

- What are the implications on data storage requirements (currently 1.8 TB) of NSLDS re-engineering?
 - What is the impact of data feed re-engineering (e.g., supporting loan detail records for Form 2000 and Form 799)?
 - What is the impact of consolidating enrollment data (e.g., outsourcing to the Clearinghouse)?
 - Is SFA's current data mart technology platform robust enough to support NSLDS requirements?

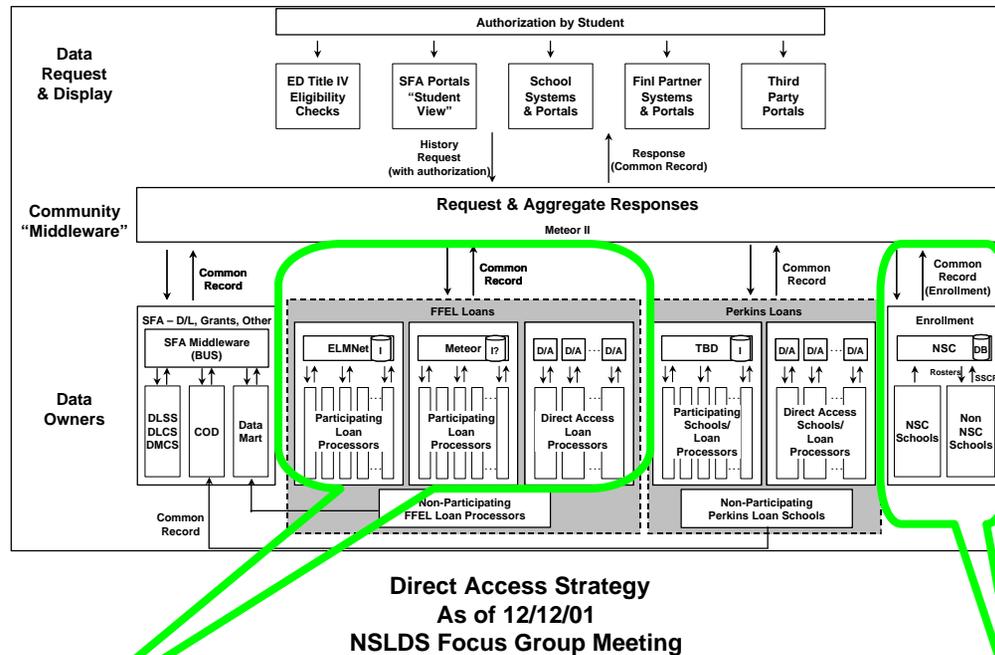
• Common Record Convergence

- How can PESC accelerate the convergence to an XML based common data exchange format?

**Community
Site Visit
Summaries**

Community Site Visit Objectives

The site visits aimed at an initial assessment of how current and emerging community capabilities might meet key elements of the NSLDS Strawman design presented at the 12/12/01 NSLDS Focus Group meeting

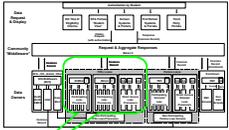


FFEL Fetch Capability focus

- ELM site visit
- Meteor site visit
- NSC site visit (index only)

Common Enrollment Database focus

- NSC site visit



FFEL Fetch Capability* Key Building Blocks, Requirements & Candidates

Infrastructure

Business Model

ELM or Meteor

- Sustainable, performance-based organization
- Ongoing funding for fetch product
- Incentives for data and index providers to participate
- Arrangement enables SFA to force compliance with critical Title IV requirements

Technical Support

ELM or Meteor

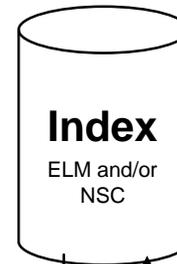
- Reliability and disaster / recovery
- Installation and help desk support
- Well-managed software distribution / version control
- Maintenance and enhancement of fetch capability

Data Standards

Common Record and/or CommonLine and/or CAM

- Reflect community consensus on data exchange format
- Accommodate all pre- and post-origination processes
- Support PESC XML standards as they evolve

Core Components



- 100% coverage of FFEL loans
- Daily updates provided by systems of record
- Accessible to all authorized and authenticated Title IV participants
- Maintained by FFEL community, not SFA
- Update as a natural course of business

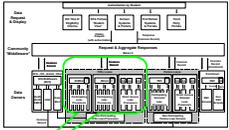


- Uses index to route requests to systems with data and integrates responses
- Real-time access to systems of record for all providers
- Accessible to all FFEL participants
- Scalable and secure
- Security and authentication standards



- Real-time access to systems of record
- Incentives for GAs, servicers and lenders to participate in fetch

*Perkins Fetch building blocks & requirements are similar but candidates differ



Key Areas for Improvement * FFEL Fetch Capabilities

- **ELM**

- ELM's fetch solution is maturing but will need time and creativity to achieve broad coverage for its index and from loan servicers

- **Index**

- The ELMNet2 index currently has 40% coverage of FFEL loans. Commitments from Sallie Mae (in March 2002) and PHEAA PHEAA that should bring coverage of non-defaulted loans to 90%
- Even with broader coverage of non-defaulted loans, index coverage still needs to improve in support of defaulted FFEL loans

- **Data Integrator**

- ELMNet2 currently provides real-time access to approximately 10% of non-defaulted FFEL loans as part of a pilot of the fetch capability at Citibank and Wells Fargo

- **Meteor**

- Meteor's solution is less mature than ELM and has major open issues regarding its business model and technical support strategy

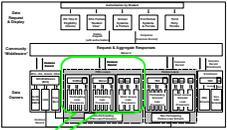
- **Business Model**

- NCHHELP launched the Meteor Project to demonstrate the feasibility of a concept and technology – not to provide the infrastructure and support for a production system.
- It is NCHHELP's intent to transition Meteor to another organization to provide long-term support. This process is vital given current plans to rollout the production system this summer

- **Technical Support**

- The Meteor solution, which is designed to be distributed across hundreds and potentially thousands of providers, introduces software distribution and version control issues, thereby increasing the difficulty of quality assurance
- As the Meteor strategy is further refined, additional attention needs to be focused on the help desk support infrastructure. To date, work in this area has been deferred as a responsibility of the adopting organization

*Based on status at the time of January 2002 site visits.



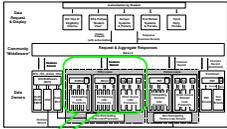
ELM Overview, History and Status

- **ELM Defined**

- ELM refers to Mutual Benefit Corporation ELM Resources as well as the combination of ELMNet2 and ELMNet3, the current and future iterations of the ELM tool that uses its home grown and maintained index of borrowers tied to the financial institution originating or servicing their loan. It also refers to the NCS Pearson data facility and technical services personnel dedicated to the ELM application and maintenance team.

- **ELM Myths / History**

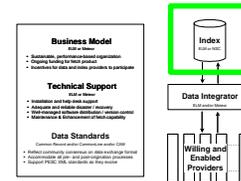
- What percent of FFEL data does the ELM have?
 - There are many other ways slice the question of “coverage” obtained by ELM, be it through memberships, origination share, affiliates, etc. However, this issue boils down to two main questions pertaining to the “fetch” strategy. What percent of post-disbursement data owners maintain their information on the ELMNet index? What percent of post-disbursement data owners are willing and able fetch providers? Today, the ELMNet index receives daily updates from lenders and servicers that comprise nearly 40% of the post-disbursement FFEL loan volume (I.e. Citibank, Wells Fargo, First Union, NELNet). ELM has commitments from PHEAA and Sallie Mae that would bring that volume to near 90% for the index. The percent of willing and able fetch providers is a subset of this 40%.
- ELM Classic, E-Box, ELMNet2, ELMNet3 – what does it all mean?
 - ELM Classic was launched by ELM in 1996 and today still serves as the core of ELM's loan delivery and origination system. E-Box is an electronic mailbox used to facilitate communication between loan parties (school, lender, etc.) ELMNet2 is a current ELM implementation that partially integrates ELM Classic with a real-time loan inquiry system using the ELMNet Index. This Index is updated daily by ELM members, through batch updates as well as through use of ELM Classic, and ties borrowers to the lending and servicing institutions that service their loans. ELMNet3 (really phase three) is the integration of ELM Classic, E-Box, and ELMNet2, along with additional real-time features. This integration is underway and is scheduled for production release Spring 2002.
- How does facilitating an Open Market drive up ELM's market share?
 - ELM is a corporation in business to provide a free service to schools by creating a common presentation of multiple member lenders for schools to choose from when issuing FFEL Loans. ELM also offers optional in-house origination services for these FFEL loans. As a by-product of this role, ELM drives competition on service levels and terms up while decreasing the importance of platform and data exchange. In this role as an originator, ELM is able to collect information from these transactions to populate an index (the ELMNet Index) that links borrowers to the source location for information about their loan. This exists as a by-product only while the loan is in the origination process. Once the loan is disbursed, manual updates are needed to keep the index current. As ELM's share (20% in 2000) of the origination market grows, so does the inherent coverage and accuracy of its index.



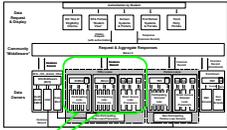
Provider: ELM

Target Data Need: FFEL and Perkins Information

Component: Index



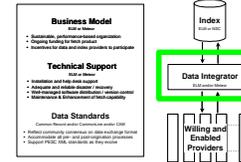
FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirements
<p>ELM's index currently covers 40% of non-defaulted FFEL loans but with major near term commitments, still has apparent gaps in the coverage of defaulted FFEL loans and Perkins loans</p>	
<ul style="list-style-type: none"> • 100 % coverage of FFEL Loans 	<ul style="list-style-type: none"> • Current 40% coverage from Citibank, Wells Fargo, First Union and NELNet plus some smaller FFEL servicers. • Commitments and work-in-progress from Sallie Mae (by end of March 2002) and PHEAA (by summer 2002) should bring non-defaulted loan coverage to 90% this year • OPEN ISSUE: Coverage for defaulted loans serviced by GAs is unclear • OPEN ISSUE: Coverage of Perkins loans is currently not provided
<ul style="list-style-type: none"> • Daily updates provided by systems of record 	<ul style="list-style-type: none"> • Index updates occur as a normal by-product of transactions made to loans while being originated through ELMNet2. • Loans not in origination require separate daily updates provided by participating members. • OPEN ISSUE: How to compel members to maintain currency of index for loans not in origination
<ul style="list-style-type: none"> • Accessible to all authorized and authenticated Title IV participants 	<ul style="list-style-type: none"> • Various levels of access exist depending on whether the user logged-on to the system as a Financial Aid Professional, using a password, or as a student using SSN and DOB.
<ul style="list-style-type: none"> • Maintained by FFEL Community, not SFA 	<ul style="list-style-type: none"> • ELM is owned and funded by its members who are FFEL lenders and guarantors • ELM and its members, not SFA, perform maintenance of the index.
<ul style="list-style-type: none"> • Update as a natural course of business 	<ul style="list-style-type: none"> • True for FFEL loans originated through ELMNet but not for loans in repayment or originated outside ELMNet • Loans that are not originated through ELM and those that are not serviced by ELM members are not maintained in the ELMNet2 index. • OPEN ISSUE: How to maintain currency of index for non-members and non-ELM-originated loans



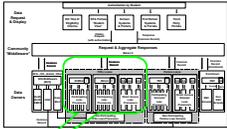
Provider: ELM

Target Data Need: FFEL and Perkins Information

Component: Data Integrator



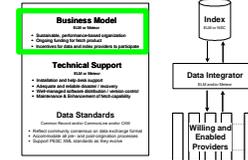
FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirements
As with its index, data provider coverage stands as one key area for improvement. Today, ELM can provide real-time access to approximately 10% of non-defaulted FFEL loans	
<ul style="list-style-type: none"> • Uses index to route requests to systems with data and integrates responses 	<ul style="list-style-type: none"> • ELMNet2 uses its index to determine the source system of information, and if that source is accepting real-time fetch then makes a request for information of that system. Otherwise, the ELMNet2 product retrieves its most recent copy of information for display to the user. • This “fetch” capability is in the pilot stages with Citibank and Wells Fargo
<ul style="list-style-type: none"> • Real-time access to systems of record for all providers 	<ul style="list-style-type: none"> • Citibank and Wells Fargo currently provide real-time access (approx 10% of non-defaulted loans) • Commitments from other ELMNet2 participants to provide real-time access to their source data • OPEN ISSUE: Impact of committed participants on overall coverage • OPEN ISSUE: Need better understanding of schedule for gaining real-time access.
<ul style="list-style-type: none"> • Accessible to all FFEL participants 	<ul style="list-style-type: none"> • Available free to students and schools • Fee-paying ELM members also have access to ELM services such as ELMNet, ELM Classic and E-Box. • FFEL lenders, servicers and GAs that are not members do not have access to ELMNet2 services.
<ul style="list-style-type: none"> • Scalable and stable 	<ul style="list-style-type: none"> • The ELMNet2 tool is built and maintained in standard “N+1” architecture, meaning “N” units of application storage and/or processing power can be added to support the product. • Application maintenance is performed by the contracted services of NCS Pearson in Iowa City, IA.
<ul style="list-style-type: none"> • Security and authentication standards 	<ul style="list-style-type: none"> • School Financial Aid Professionals and ELM Members are authenticated by password. • Today, student access to the site is not password or pin protected. • NCS Pearson is also the SFA operating partner maintaining the SFA Pin Site.



Provider: ELM

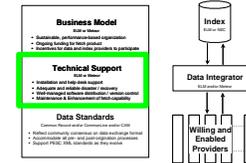
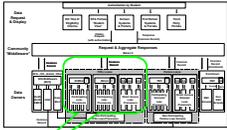
Target Data Need: FFEL and Perkins Information

Component: Business Model

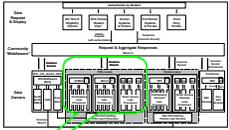


FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirements
ELM's business model is fundamentally sound, built around its core loan origination business	
<ul style="list-style-type: none"> • Sustainable, performance-based organization 	<ul style="list-style-type: none"> • Provides a demanded service to its customers, with loan origination serving as the foundation for the business • Sound capital backing from multiple credible sources in finance and banking • Led by a board of directors - all ELM Members – who each have one equal vote
<ul style="list-style-type: none"> • Ongoing funding for fetch product 	<ul style="list-style-type: none"> • The ELMNet2 product is a current offering from ELM and enhancements to the product are planned through Spring 2002 and beyond to expand fetch capabilities. • OPEN ISSUE: Timing and estimated funding levels for expanded capabilities vs. maintenance and support
<ul style="list-style-type: none"> • Incentives for data and index providers to participate 	<ul style="list-style-type: none"> • As schools and other lenders apply pressure to increase service levels and offer better loan terms, lenders and servicers are driven toward participation to increase their visibility and lower competition costs based on platform dependence. • OPEN ISSUE: Need better understanding of current pricing structure for members and potential implications, particularly for smaller lenders
<ul style="list-style-type: none"> • Arrangement enables SFA to force compliance with critical Title IV requirements 	<ul style="list-style-type: none"> • ELM is owned and funded by its members who are FFEL lenders and guarantors • ELM indicated that it was willing to work with SFA regarding fetch capability evolution. • OPEN ISSUE: SFA reliance on an ELM-provided fetch capability will require a detailed contract with ELM, similar in scope and terms to an “operating partner” agreement that balances SFA and ELM interests.

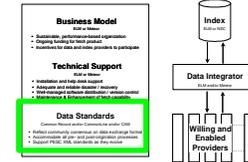
Provider: ELM
Target Data Need: FFEL and Perkins Information
Component: Technical Support



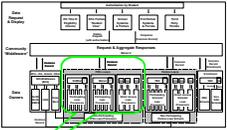
FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirements
Technical support services, including help desk support and software maintenance, are managed and provided by NCS Pearson	
<ul style="list-style-type: none"> Reliability and disaster / recovery 	<ul style="list-style-type: none"> Routers, switches, servers and storage are redundant in both power supply and I/O access. ELM servers are monitored at the NCS Pearson data center using HP Open View and Tivoli monitoring tools. Weekly full backups and nightly incremental backups are taken and stored at an off-site location.
<ul style="list-style-type: none"> Installation and help desk support 	<ul style="list-style-type: none"> ELM's installation and help desk support services are contracted through NCS Pearson. NCS Pearson became the ELM technical services provider in late calendar year 2001. OPEN ISSUE: Need to confirm that the existing help desk structure is scalable given that the use of the ELMNet2 index could significantly increase support requirements. For example, hits on the index would increase from sporadic inquiries to constant use by a much more active user base including SFA.
<ul style="list-style-type: none"> Well-managed software distribution / version control 	<ul style="list-style-type: none"> The ELMNet2 and future phase ELMNet3 are centralized, web-served applications. NCS Pearson manages these web-servers as well as maintenance for older versions of ELM Classic and E-Box.
<ul style="list-style-type: none"> Maintenance and enhancement of fetch capability 	<ul style="list-style-type: none"> ELM and NCS Pearson indicated that they are willing to work with SFA and the community to advance their fetch capabilities. ELM and NCS Pearson perform ongoing maintenance for the existing ELM products. OPEN ISSUE: What are the business drivers for ELM's members and sponsors to enhance fetch given that loan origination is ELM's core business?



Provider: ELM
Target Data Need: FFEL and Perkins Information
Component: Data Standards



FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirements
Today, ELM supports multiple CommonLine formats and has expressed a willingness to move in the direction of a single, standard format and support key extensions	
<ul style="list-style-type: none"> • Reflect community consensus on data exchange format 	<ul style="list-style-type: none"> • Currently ELMNet2 supports multiple CommonLine formats
<ul style="list-style-type: none"> • Accommodate all pre- and post-origination processes 	<ul style="list-style-type: none"> • ELM has indicated a desire to work with COTS vendors such as PeopleSoft to support the end-to-end financial aid life cycle. • ELM has also indicated the potential to make enhancements to ELMNet2 to support defaulted, Perkins and Direct loans as well as state grants. • OPEN ISSUE: Need better understanding of ELM's priorities with regard to enhancements including SIS software and alternative aid.
<ul style="list-style-type: none"> • Support PESC XML standards as they evolve 	<ul style="list-style-type: none"> • ELMNet2 uses CommonLine (flat file) formatted files for its data exchange. • ELM has indicated that it supports the evolution of XML as a standard. • OPEN ISSUE: Who is going to be the leader of this initiative?



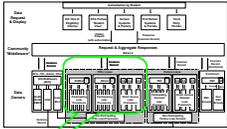
Meteor Overview, History and Status

• Meteor Defined

- Meteor refers to the concept and development plan to use a distributed network of Access, Index and Data providers to provide a real-time FFEL borrower and loan inquiry tool. It also refers to the Priority Technology personnel dedicated to the Meteor Project and the undetermined future corporate adopter for the initiative.

• Meteor Myths / History

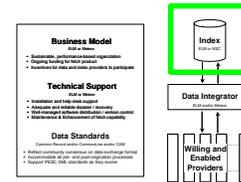
- Is there a real-live product?
 - Meteor completed a Reference Implementation in March 2001 using Sallie Mae as the Data Provider and the All Borrower Index (Clearinghouse – Loan Locator) as the Index Provider. The Reference Implementation is not the version that will be implemented for use by the community, but rather was a proof-of-concept on which to build and refine the future Meteor architecture. The next iteration of the product is slated for completion mid-year 2002.
 - Status of current implementation iteration:
 - February – early adopters guide
 - April – implementation guide
 - June – code release
 - Phased rollout to production
- What is an Incubator Strategy?
 - NCHELP has been fostering the development of the Meteor Project for over 2 years in the hope that the project would grow to take on a life of its own. With the addition of Priority Technology Inc. as the developer of the new product, and the fast approaching implementation, Meteor is placing more and more demands on NCHELP, demands it was never suited to address. As the incubator of this project, NCHELP has come to the conclusion that it is time for Meteor to “leave the nest” and be adopted by a corporate sponsor who can carry on the development
- Up for Adoption?
 - Post-incubation stage, NCHELP is now soliciting bids for a corporate sponsor for the Meteor Project. To date, bids from both ELM and The Clearinghouse have been received and reviewed. The goal of the adoption is to place the Meteor Project ground work in the hands of a corporation, rather than a trade organization, that is better suited to the development, maintenance and improvement needs of a true production application.



Provider: Meteor

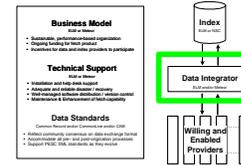
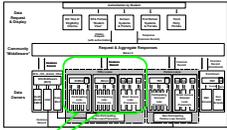
Target Data Need: FFEL and Perkins Information

Component: Index



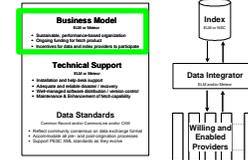
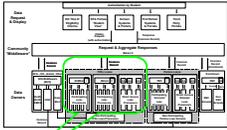
FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirement
Meteor's indexing strategy is designed to maximize coverage through the use of multiple index providers including the Clearinghouse and ELM	
<ul style="list-style-type: none"> 100 % coverage of Loans 	<ul style="list-style-type: none"> Although Meteor is not an index or an index provider, it is architected to use a network of index providers to achieve maximum coverage. The Meteor solution plans to use the All Borrower Index (Clearinghouse Loan Locator) and the ELMNet2 Index as its indexes. The All Borrower Index has near 100% coverage of defaulted and non-defaulted FFEL loans, and updated on a monthly basis by GAs The ELMNet2 Index has 40% coverage of open, non-defaulted FFEL loans, and is updated as often as on a daily basis for ELM originated loans OPEN ISSUE: Terms have not been reached for the use of the ELMNet2 Index OPEN ISSUE: What is the freshness of data in the All Borrower Index, especially for non-defaulted loans where a GA is not the system of record? OPEN ISSUE: Coverage of Perkins loans is currently not provided
<ul style="list-style-type: none"> Daily updates provided by systems of record 	<ul style="list-style-type: none"> The All Borrower Index is updated at the discretion of the data provider. For the ELMNet2 Index, updates occur as a normal by-product of transactions made to loans while being originated through ELMNet2. Loans not in origination require separate daily updates provided by members. OPEN ISSUE: How to compel NSC data providers, and ELM data providers with loans not in origination, to maintain currency of indexes
<ul style="list-style-type: none"> Accessible to all authorized and authenticated Title IV participants 	<ul style="list-style-type: none"> One of Meteor's primary objectives is to provide free access to all authorized and authenticated Title IV participants through an open source model.
<ul style="list-style-type: none"> Maintained by FFEL Community, not SFA 	<ul style="list-style-type: none"> Meteor is not an index or an index provider. Maintenance of the index is the responsibility of the individual index providers (e.g., ELM, NSC).
<ul style="list-style-type: none"> Update as a natural course of business 	<ul style="list-style-type: none"> Meteor is architected to rely on the All Borrower Index and ELMNet2 Index to be maintained as part of their role as Index Providers. OPEN ISSUE: How to determine which index is correct when multiple "hits" are made for a record OPEN ISSUE: How to maintain currency of index

Provider: Meteor
Target Data Need: FFEL and Perkins Information
Component: Data Integrator



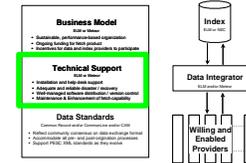
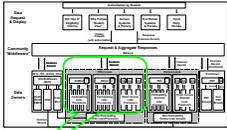
FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirement
<p>Although the production system will not be available before the Summer of 2002, Meteor has a growing list of “early adopters. Further, Sallie Mae participated in the “Reference Implementation” of Meteor in March 2001</p>	
<ul style="list-style-type: none"> • Uses index to route requests to systems with data and integrates responses 	<ul style="list-style-type: none"> • Meteor’s software is designed to be installed at an “Access Provider’s” site (e.g., student portal at a school). This software will make requests of multiple Index Providers (e.g., NSC and ELM). If there is a hit, these Index Providers will then contact the correct Data Provider to attempt a real-time fetch of information. Once all responses are returned, business logic found in the “Access Provider’s” installation of the Meteor software would determine what is the most current information to display to the user. • This “fetch” capability was piloted as part of the Reference Implementation in March 2001 using the All Borrower Index and Sallie Mae as the Data Provider over a single room LAN using a local installation of the Meteor software. • The Meteor solution relies on the ability to fetch data from the source system, in the event of a failure to retrieve data there is no copy of data, dated or otherwise, to serve as a “system of last resort”. • OPEN ISSUE: The Reference Implementation is not the current version of the software and the new, production version of software is not scheduled from release until later this summer • OPEN ISSUE: What happens when no hits are returned from the Index Provider or Data Provider?
<ul style="list-style-type: none"> • Real-time access to systems of record for all providers 	<ul style="list-style-type: none"> • “Early Adopters” can start to enable real-time access by Spring of 2002 • The list of early adopters is small, but growing • OPEN ISSUE: Need better list and schedule of early and planned adopters. • OPEN ISSUE: Need better understanding of initial capabilities available to early adopters given that programming activities are scheduled for completion in June 2002 with testing and rollout to occur later in the summer.
<ul style="list-style-type: none"> • Accessible to all FFEL participants 	<ul style="list-style-type: none"> • Plans are to enable Meteor for use free of charge to all participants.
<ul style="list-style-type: none"> • Scalable and stable 	<ul style="list-style-type: none"> • Meteor has not yet been delivered for use as a production system; however, both the application and its distributed installation approach enable it to expand to the necessary scale. • Meteor’s distributed network of hardware, software and security (authentication) make stability and security difficult to judge. • OPEN ISSUE: Security and authentication are the responsibility of the Access Provider. As Meteor plans to have multiple Access Providers, who and how will they manage the overall security of the system?
<ul style="list-style-type: none"> • Security and authentication standards 	<ul style="list-style-type: none"> • The Meteor project has expressed interest in using the SFA Pin site as an alternative for their Access Providers who will perform authentication. • OPEN ISSUE: The distributed nature of the Meteor architecture will necessitate the ability to share authentication certificates or rights across multiple unrelated platforms. How will this be achieved and maintained when everyone will need to adopt this model?

Provider: Meteor
Target Data Need: FFEL and Perkins Information
Component: Business Model

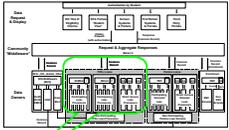


FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirement
NCHELP is actively seeking to transition Meteor to an organization that can make it a viable, long-term solution – a role that NCHELP is not positioned for, or intends to support	
<ul style="list-style-type: none"> • Sustainable, performance-based organization 	<ul style="list-style-type: none"> • The Meteor project was launched by the NCHELP trade organization to demonstrate the feasibility of the concept and technology • NCHELP's intent is to turn over the production version of Meteor to another organization to provide the required infrastructure and support. • NCHELP has issued multiple RFPs in recent months to take over support of Meteor. Respondents have included the Clearinghouse and ELM. • OPEN ISSUE: The viability of the Meteor is in jeopardy until the project is transitioned to an organization with a long-term commitment to its success.
<ul style="list-style-type: none"> • Ongoing funding for fetch product 	<ul style="list-style-type: none"> • Without a corporate owner, Meteor has relied on contributions from its 40 sponsors to support product development. In addition to funding, 20+ sponsors have provided no-cost, in-kind services. • As a trade organization, NCHELP is not positioned and does not intend to provide ongoing product funding and support.
<ul style="list-style-type: none"> • Incentives for data and index providers to participate 	<ul style="list-style-type: none"> • As schools and other lenders apply pressure to increase service levels and offer better loan terms, lenders and servicers are driven toward participation to increase their visibility and lower competition costs based on platform dependence.
<ul style="list-style-type: none"> • Arrangement enables SFA to force compliance with critical Title IV requirements 	<ul style="list-style-type: none"> • NCHELP has indicated that it is willing to work with SFA regarding Meteor fetch capability evolution. • However, until another organization has taken over support of Meteor, it is difficult to predict SFA's ability to force compliance with Title IV requirements

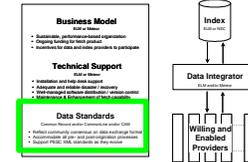
Provider: Meteor
Target Data Need: FFEL and Perkins Information
Component: Technical Support



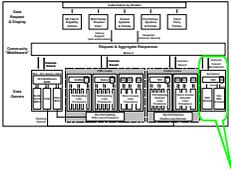
FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirement
To date, key aspects of the technical support strategy, including help desk support and software distribution, have not been adequately addressed and will become the responsibility of the organization that takes over Meteor	
<ul style="list-style-type: none"> Reliability and disaster / recovery 	<ul style="list-style-type: none"> The distributed nature of the Meteor solution also distributes the need for reliability and disaster recovery services across hundreds and, potentially, thousands of Index, Access and Data Providers. OPEN ISSUE: How will standards be enforced to maintain reliability and recovery of the system across the distributed network?
<ul style="list-style-type: none"> Installation and help desk support 	<ul style="list-style-type: none"> The distributed nature of the Meteor architecture makes installation and help desk support essential to its success and viability. OPEN ISSUE: This capability cannot be assessed until support has been transitioned from NCHELP to another organization.
<ul style="list-style-type: none"> Well-managed software distribution / version control 	<ul style="list-style-type: none"> The distributed nature of the Meteor architecture makes distribution and version control essential to its success and viability. OPEN ISSUE: This capability cannot be assessed until support has been transitioned from NCHELP to another organization.
<ul style="list-style-type: none"> Maintenance and enhancement of fetch capability 	<ul style="list-style-type: none"> The distributed nature of the Meteor architecture makes maintenance and enhancement support essential to its success and viability. OPEN ISSUE: This capability cannot be assessed until support has been transitioned from NCHELP to another organization.



Provider: Meteor
Target Data Need: FFEL and Perkins Information
Component: Data Standards



FFEL Fetch Capability Requirements by Building Block	Ability to Meet Requirement
Meteor is being developed to support an XML-based format for data exchanges with some flexibility to support the convergence of existing data formats and extensions to support end-to-end financial aid delivery processes	
<ul style="list-style-type: none"> Reflect community consensus on data exchange format 	<ul style="list-style-type: none"> Meteor is planning to use an XML based format for all its data exchange. This XML schema is a different format than CommonLine, Common Record or CAM. However, Meteor is consistent with PESC’s early XML standards work.
<ul style="list-style-type: none"> Accommodate all pre- and post-origination processes 	<ul style="list-style-type: none"> Meteor is being built to accommodate all pre and post-origination processes. The data retrieved by Meteor is only as complete as its network of Index and Data providers.
<ul style="list-style-type: none"> Support PESC XML standards as they evolve 	<ul style="list-style-type: none"> Meteor is planning to use an XML based format for all its data exchange. Meteor has supported efforts to codify a common XML dictionary of tags for use in data exchange.



Common Enrollment Database Key Building Blocks & Requirements

Infrastructure

Business Model

- Sustainable, performance-based organization
- Ongoing funding for enrollment database
- Incentives for schools to participate
- Does not require membership fee for minimal Roster/SSCR processing
- Arrangement enables SFA to force compliance with critical Title IV requirements

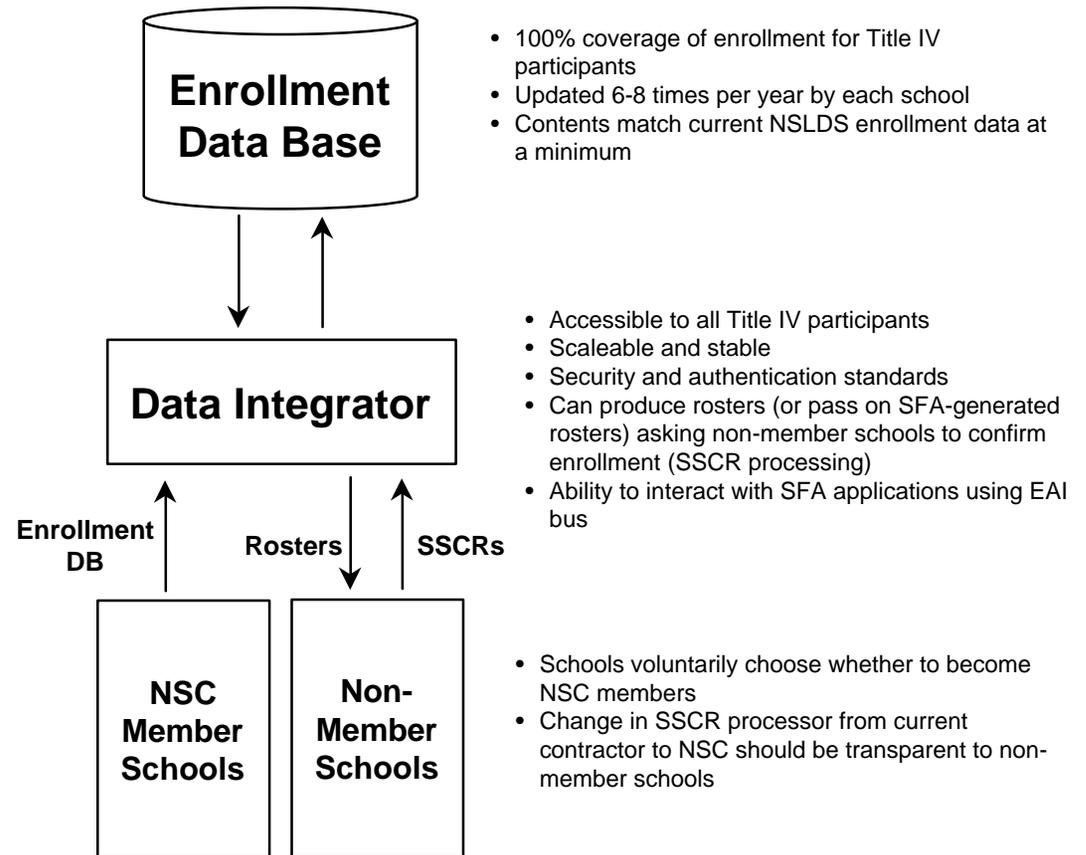
Technical Support

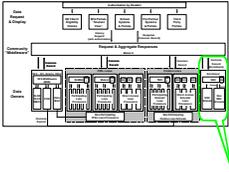
- Reliability and disaster / recovery
- Installation and help desk support
- Maintenance and enhancement of database

Data Standards

- Support Common Record
- Support current SSCR data standards
- Support PESC XML standards as they evolve

Core Components





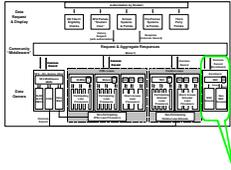
Clearinghouse Overview, History and Status

- **Clearinghouse Defined**

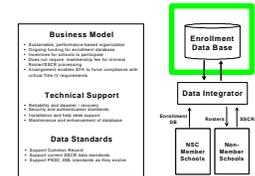
- The Clearinghouse refers to the National Student Clearinghouse and the enrollment and student roster services it provides to its subscribers. These services include roster reporting and enrollment verification for schools as well as SFA. The Clearinghouse also has an index of borrowers tied to their respective lenders called the All Borrower Index (sometimes called the Loan Locator). All Borrower Index is currently slated to be a Meteor Index Provider. More detail about this relationship is addressed as part of the Meteor overview and site visit summary.

- **Clearinghouse Myths / History**

- What percent of Enrollment data does the Clearinghouse have?
 - The Clearinghouse receives enrollment information from 2700 colleges comprising over 85% of the total national collegiate enrollment. This number includes total student enrollment information, not just Title IV aid recipients. There are over 7000 post-secondary schools who are eligible for Title IV Aid, meaning that only 38% of the institutions are members of the Clearinghouse. However, from those 2700 colleges, the Clearinghouse provides enrollment information to NSLDS today comprising nearly 80% of Title IV Aid recipients.
- How does the Clearinghouse support the SSCR process?
 - Member institutions send a list of total enrollment information to the Clearinghouse at least 5 times per year. For those schools who choose to use the Clearinghouse to report enrollment to NSLDS, the Clearinghouse also receives a roster from NSLDS at least 5 times per year. The Clearinghouse then compares the NSLDS generated roster of Title IV recipients with the total enrollment list from the school to create a response to the NSLDS request for verification. Once completed, the roster is returned to NSLDS on behalf of the school. The Clearinghouse does not report total enrollment of the school to NSLDS, it essentially behaves as a school would in response to the SSCR request.
- Clearinghouse on a smaller scale
 - The Clearinghouse On-line Reporting Application, or CORA, is a service designed to enable smaller schools (under 500 students) to participate in the basic services of the Clearinghouse. With CORA, the school can simply update enrollment data of all students on-line at the CORA web-site. This eliminates the need to program the school computer system or even have a computerized student information system. The Clearinghouse takes care of all software upgrades and maintenance.

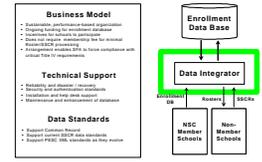
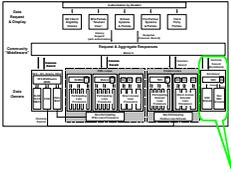


Provider: Clearinghouse
Target Data Need: Enrollment Information
Component: Enrollment Database



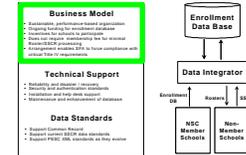
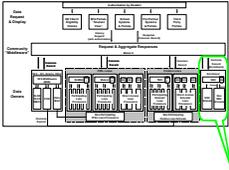
Enrollment Capability Requirements by Building Block	Ability to Meet Requirement
The Clearinghouse currently maintains SSCR data and enrollment data for 80%+ of the Title IV participants and enrolled students, respectively	
<ul style="list-style-type: none"> 100% coverage of enrollment for Title IV participants 	<ul style="list-style-type: none"> The Clearinghouse provides SSCR data for 80% of Title IV participants The Clearinghouse receives total enrollment for 86% of all students enrolled in college, representing 2,600 of over 7,000 schools OPEN ISSUE: Unclear whether the 86% reported by the Clearinghouse represents total national enrollment including proprietary schools, or just collegiate enrollment
<ul style="list-style-type: none"> Updated 6-8 times per year by each school 	<ul style="list-style-type: none"> Members update the Clearinghouse at a minimum of bi-monthly.
<ul style="list-style-type: none"> Contents match current NSLDS enrollment data at a minimum 	<ul style="list-style-type: none"> The Clearinghouse updates NSLDS as a service for its member schools and therefore it is capable of supplying information needed by NSLDS in the proper format. OPEN ISSUE: Need a better understanding regarding the granularity of detail (e.g., graduated vs. withdrawn) of updates to student status information and how it may differ with those that report directly to NSLDS today.

Provider: Clearinghouse
Target Data Need: Enrollment Information
Component: Data Integrator



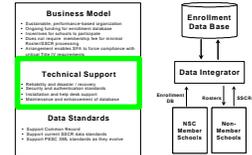
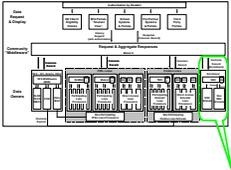
Enrollment Capability Requirements by Building Block	Ability to Meet Requirement
The NSC grants access to enrollment and/or loan information to members, students and the SFA. In addition to providing SSCR services for members schools, the NSC is also open to providing these services, for a fee, for non-member schools	
<ul style="list-style-type: none"> • Accessible to all Title IV participants 	<ul style="list-style-type: none"> • Access to enrollment information is granted to Clearinghouse members and SFA. • Students have access to Loan Locator information and services, but do not have access to individual enrollment information. • All schools and data providers can submit data to the Clearinghouse.
<ul style="list-style-type: none"> • Scalable and stable 	<ul style="list-style-type: none"> • The Clearinghouse database is maintained in a stable, hardware redundant production environment and is housed on a machine capable of doubling in size with regard to storage, processing and throughput volume. • OPEN ISSUE: Currently the Clearinghouse database is housed in their office facility rather than in a data center facility.
<ul style="list-style-type: none"> • Security and authentication standards 	<ul style="list-style-type: none"> • Secure means of data exchange are available for communication to and from the Clearinghouse, but are not required. • Student authentication to the Loan Locator service does not require a password, only the entry of a valid SSN, DOB data pair. • The Clearinghouse indicated a willingness to use the SFA Pin site as a means of authentication for use of the database • OPEN ISSUE: Pricing for use of the SFA Pin site needs to be discussed to make this a financially viable option for SFA and the Clearinghouse
<ul style="list-style-type: none"> • Can produce rosters (or pass on SFA-generated rosters) asking non-member schools to confirm enrollment (SSCR processing) 	<ul style="list-style-type: none"> • A school that chooses to participate signs a contract with the Clearinghouse, appointing the Clearinghouse as the school's agent for purposes of confirming enrollment status of student financial aid recipients. • The Clearinghouse was open to discussing the opportunity to provide SSCR services, for a fee, for non-member schools • OPEN ISSUE: Need to better understand any obstacles – legal/contractual and otherwise – that would may impair NSC's ability to provide rosters for non-member schools
<ul style="list-style-type: none"> • Ability to interact with SFA applications using EAI bus 	<ul style="list-style-type: none"> • Today, the NSC interacts with SFA through a flat file update interface with NSLDS. • Currently the ability to interact with the SFA EAI bus is not in place. • OPEN ISSUE: Further NSLDS II design work needs to be completed in order to determine which applications will need real-time access to student enrollment data (e.g. CPS, COD)

Provider: Clearinghouse Target Data Need: Enrollment Information Component: Business Model



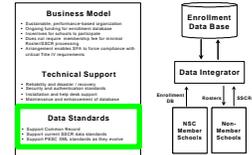
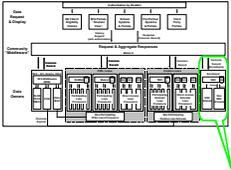
Enrollment Capability Requirements by Building Block	Ability to Meet Requirement
The Clearinghouse supports a suite of student enrollment products and services that are very much in demand in the financial aid community, and already has a performance-based contract with SFA in place to provide enrollment information	
<ul style="list-style-type: none"> Sustainable, performance-based organization 	<ul style="list-style-type: none"> Provides a demanded service to its customers (e.g., DegreeVerify, EnrollmentVerify, EnrollmentSearch and LoanLocator). A board of directors comprised of members from educational institutions, guarantors, lenders and servicers governs the Clearinghouse. Already have a performance based contract in place to provide enrollment information to SFA
<ul style="list-style-type: none"> Ongoing funding for enrollment database 	<ul style="list-style-type: none"> Participating member guarantors, lenders and servicers underwrite operating costs. Therefore, there is no charge to schools for participation in the Clearinghouse.
<ul style="list-style-type: none"> Incentives for schools to participate 	<ul style="list-style-type: none"> Can submit enrollment information and process SSCR through the database free of charge, however they will not be able to use any of the Clearinghouse's additional for-fee services (e.g. EnrollmentSearch, EnrollmentVerify) OPEN ISSUE: Need to better understanding pricing of services and potential incentives/disincentives to participate, particularly for smaller schools
<ul style="list-style-type: none"> Does not require membership fee for minimal Roster/SSCR processing 	<ul style="list-style-type: none"> Can participate through CORA – (Clearinghouse On-line Reporting Application) for free. This technology enables smaller schools to submit information on-line directly to the Clearinghouse database.
<ul style="list-style-type: none"> Arrangement enables SFA to force compliance with critical Title IV requirements 	<ul style="list-style-type: none"> Clearinghouse has indicated that it is willing to work with SFA regarding Clearinghouse fetch capability evolution. Existing contract with SFA indicates a willingness to establish additional performance based contract(s).

Provider: Clearinghouse
Target Data Need: Enrollment Information
Component: Technical Support



Enrollment Capability Requirements by Building Block	Ability to Meet Requirement
Adequate technical support capabilities are in place to support existing services	
<ul style="list-style-type: none"> Reliability and disaster / recovery 	<ul style="list-style-type: none"> Routers, switches, servers and storage are redundant in both power supply and I/O access. Weekly full backups and nightly incremental backups are taken and stored at an off-site location.
<ul style="list-style-type: none"> Installation and help desk support 	<ul style="list-style-type: none"> The Clearinghouse supports an existing suite of products in use by its member schools today. OPEN ISSUE: A large increase in demand for support (increase from 2,600 to over 7,000 schools) could put a strain on the Clearinghouse regarding this type of support.
<ul style="list-style-type: none"> Maintenance and enhancement of database 	<ul style="list-style-type: none"> Service level agreements in place with IBM for maintenance of the hardware and Informix database. Enhancements to the product and database are scheduled periodically to address fixes and enhancement requests. The enrollment database is central to the services provided by the Clearinghouse

Provider: Clearinghouse
Target Data Need: Enrollment Information
Component: Data Standards

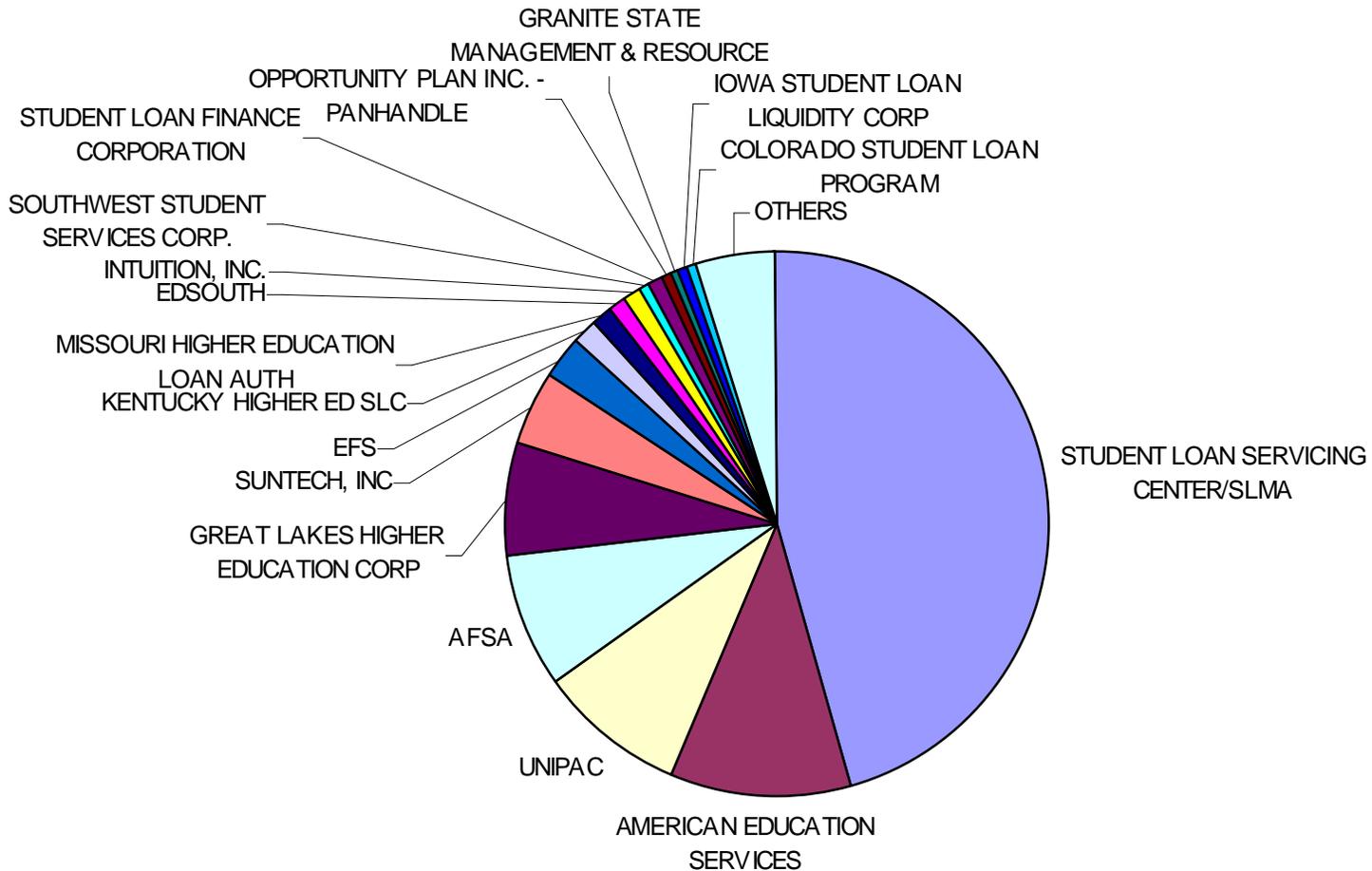


Enrollment Capability Requirements by Building Block	Ability to Meet Requirement
The Clearinghouse is willing to provide its support in the evolution of data exchange format and standards in the financial aid community	
<ul style="list-style-type: none"> • Reflect community consensus on data exchange format 	<ul style="list-style-type: none"> • Currently use a flat file data exchange format.
<ul style="list-style-type: none"> • Supports SSCR data standards 	<ul style="list-style-type: none"> • The Clearinghouse updates NSLDS as a service for its member schools and therefore it is capable of supplying all NSLDS needed information in the proper format.
<ul style="list-style-type: none"> • Support PESC XML standards as they evolve 	<ul style="list-style-type: none"> • Indicated a willingness to support the evolution of XML data exchange standards within the community. • Currently use a flat file data exchange format.

**FFEL
Market Share
Data**

FFEL Market Share Data

Top Servicers in FFEL Loan* Dollars Serviced (As of 02/02/02)



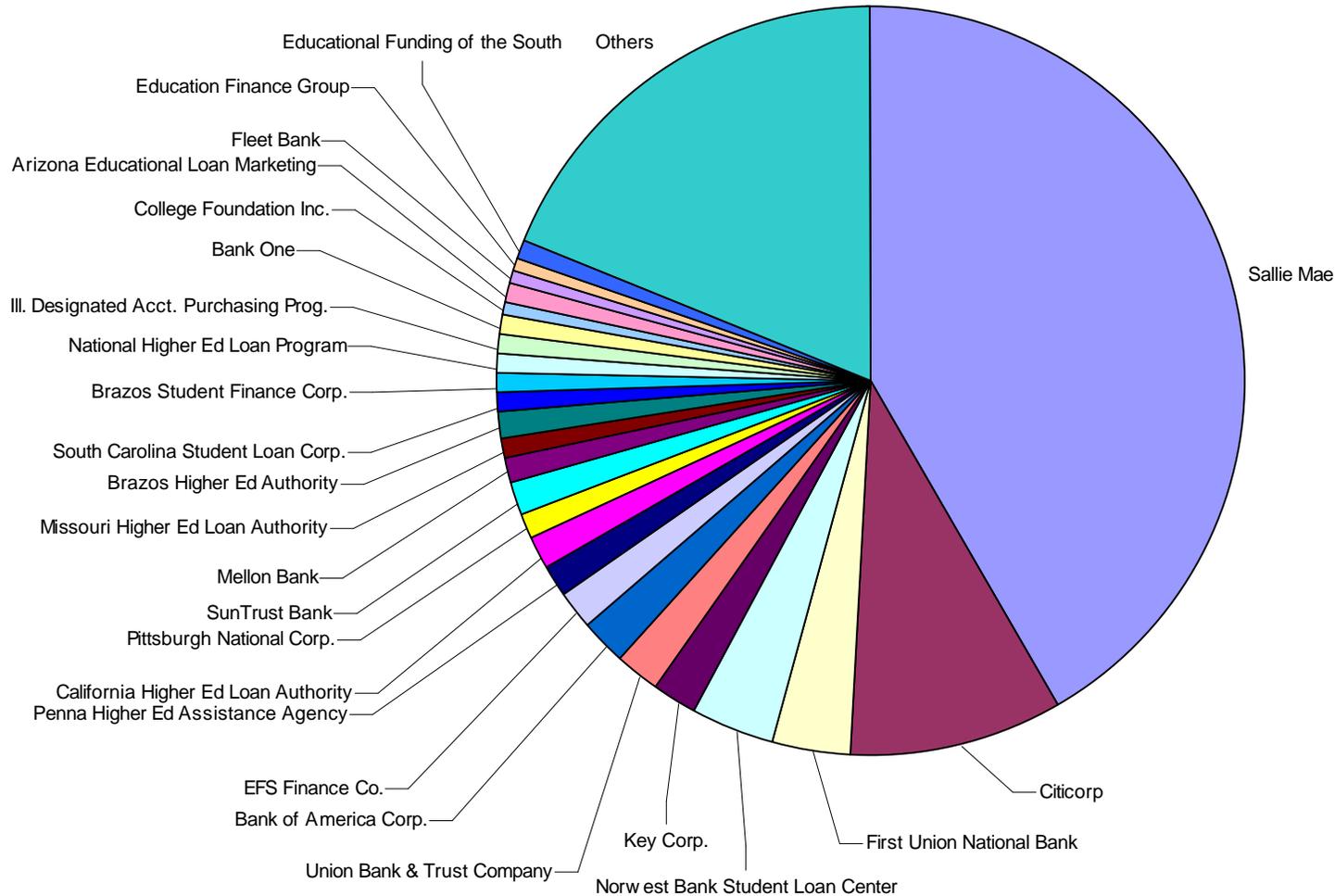
Total Dollars Serviced = \$119,180 (in millions)

SOURCE: U.S. Department of Education, National Student Loan Data System

* Includes open loans in lender-held statuses (DA, FB, IA, ID, IG, IM, RP) from servicers with a loan volume greater than 1000 loans. Does not include loans for which no servicer is reported to NSLDS, i.e., Secondary Markets do not report servicer code for loans on their servicing systems that they also own. For example, PHEAA.

FFEL Market Share Data

Top Lenders in FFEL Loan* Dollars Held Through FY00



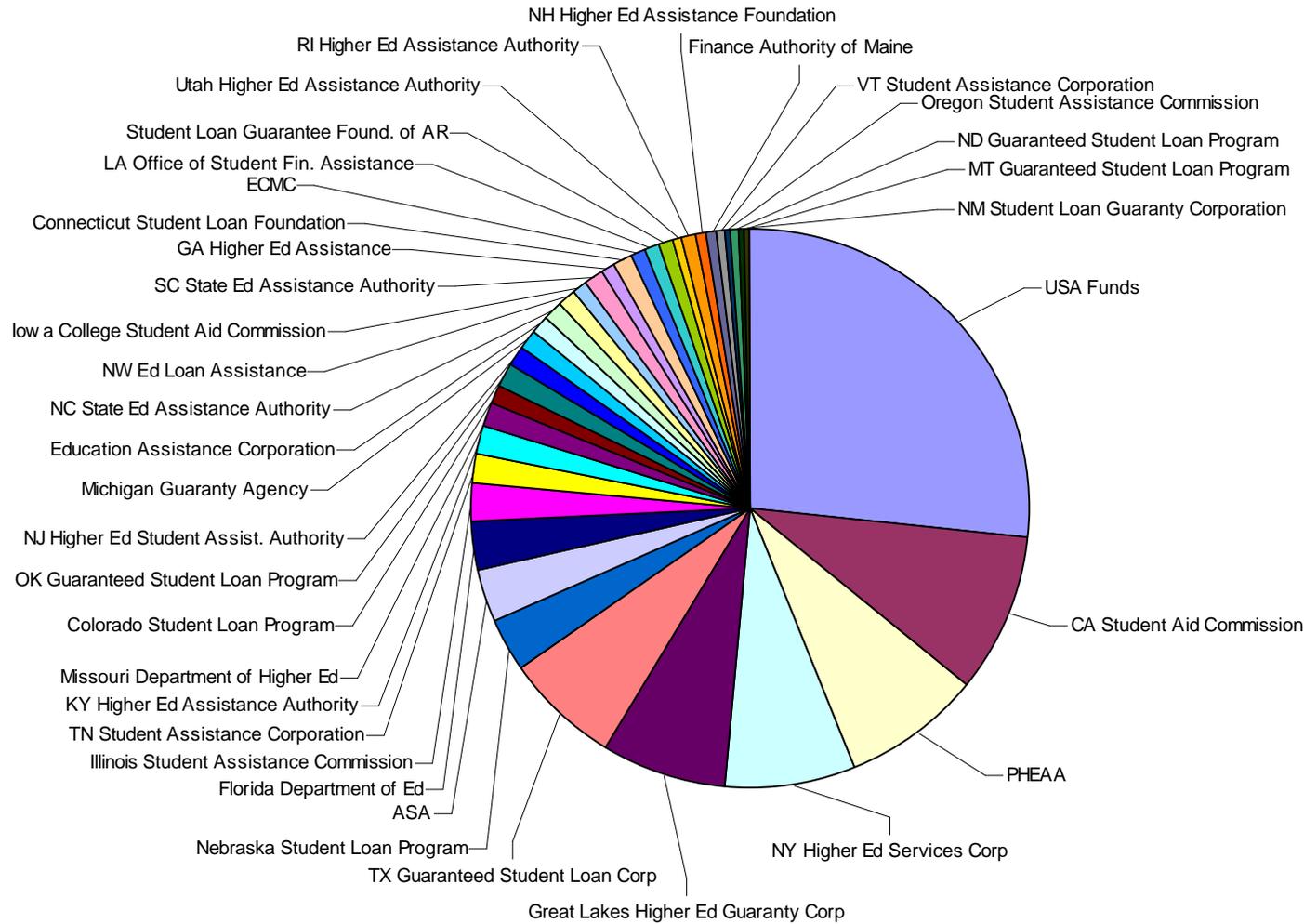
Total Dollars Held = \$141,242 (in millions)

SOURCE: U.S. Department of Education, Office of Postsecondary Education

* Includes Subsidized, Unsubsidized, PLUS, SLS and Consolidated amounts outstanding as of September 30, 2000

FFEL Market Share Data

Guaranty Agency Loan Dollars Committed FY00*



Total Dollars Committed= \$25,656 (in millions)

SOURCE: U.S. Department of Education, Office of Postsecondary Education

* Includes Subsidized, Unsubsidized and PLUS Loan Dollars Committed During Fiscal Year 2000